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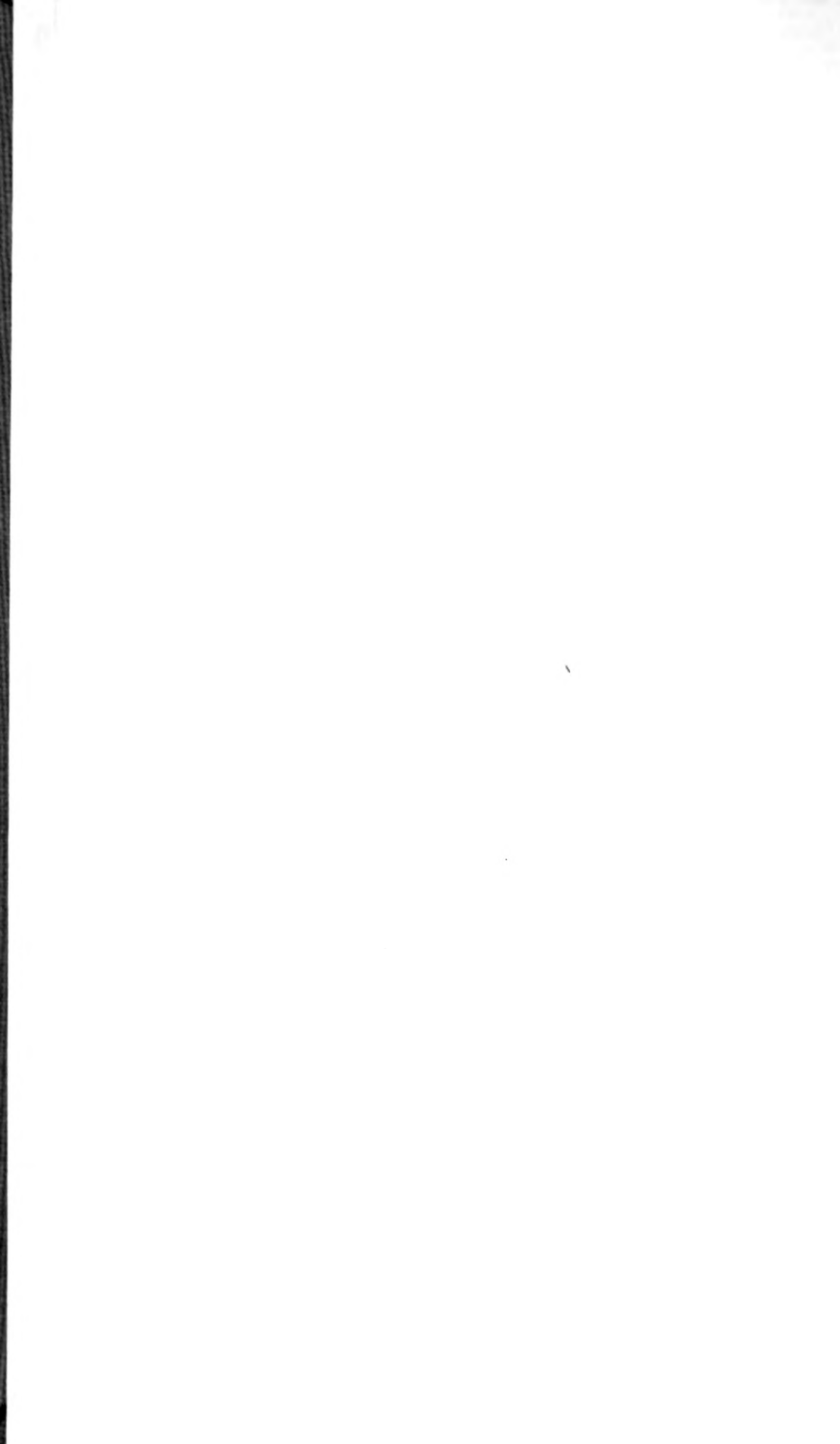
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No. 12848

2678

**United States
Court of Appeals**

For the Ninth Circuit.

see vol. 2677

THE PARKER APPLIANCE COMPANY, a Corporation,

Appellant,

vs.

IRVIN W. MASTERS, INC., and JOSEPH C. COLLINS, Doing Business Under the Firm Name and Style of Collins Engineering Company,

Appellee.

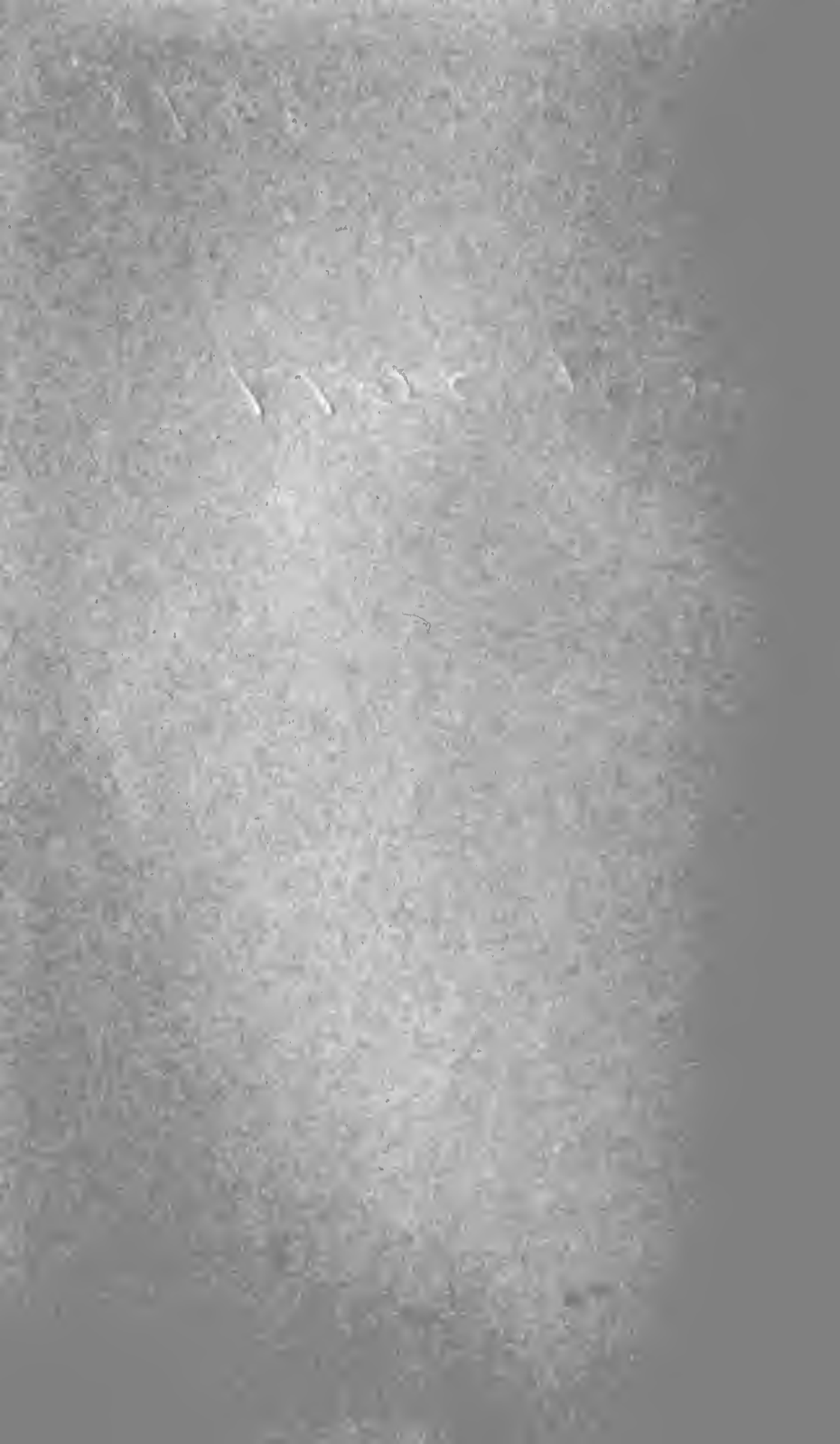
**Transcript of Record
IN FOUR VOLUMES
Volume III
(Pages 925 to 1322)**

**Appeal from the United States District Court,
Southern District of California
Central Division.**

FILED

MAY - 9 1951

PAUL F. O'BRIEN,
CLERK



No. 12848

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Southern District of California
Central Division.



[Title of District Court and Cause.]

Civil Action Nos. 7874-B and 8023-W

DEPOSITIONS OF FREDERICK E. AMON,
JR., AND ROBERT HENRY DAVIES

taken before William E. Ferris, a Notary Public
within and for the County of Cuyahoga, State of
Ohio, at the offices of Messrs. Thompson, Hine &
Flory, 1122 Guardian Building, Cleveland, Ohio,
commencing at 2:00 p.m., Thursday, May 5, 1949,
pursuant to the attached notices.

Appearances:

MESSRS. BAIR & FREEMAN,
135 South La Salle Street,
Chicago 3, Illinois, by
MR. WILL FREEMAN and
MR. W. M. VAN SCIVER,
For the Plaintiff.

MESSRS. HUEBNER, BEEHLER, WOR-
REL, HERZIG & CALDWELL,
610 South Broadway,
Los Angeles 14, California, by
MR. VERNON D. BEEHLER,
For the Defendants.

Also Present:

MR. IRVIN W. MASTERS,
President of Defendant Irvin W. Masters,
Inc. [2*]

* Page numbering appearing at top of page of original Reporter's
Transcript of Record.

May 5, 1949, at 2:00 P.M.

Mr. Freeman: It is stipulated by and between counsel that the record here made shall be usable in both of the above-captioned cases.

I want the record to show that there has been made available to the defendants Joseph C. Collins and Irvin W. Masters, Inc., the drawings, catalogues, and other data requested by Defendant Joseph C. Collins in his motion, and particularly the data referred to in the proceedings before his Honor, Campbell E. Beaumont, on Monday, May 2, 1949. The defendants have requested additional shop drawings for the years 1930 to date with respect to couplings of the sizes 6, 8, and 12, and these drawings are to be made available to the defendants at Plaintiff's plant at the completion of the proceedings here.

Now, that is all correct, isn't it, Mr. Beehler?

Mr. Beehler: Right.

Mr. Freeman: Just off the record a minute.

(Discussion, off the record.)

Mr. Freeman: So that the record is clear, we—that is, The Parker Appliance Company—have complied with your understanding of the [4] proceedings before his Honor, Judge Beaumont, of Monday, May 2nd. That is correct?

Mr. Beehler: That is correct. With the understanding that you are going to help us continue to pick up the additional drawings which we have asked for.

Mr. Freeman: And that, too, is correct.

Mr. Beehler, I understand that you are now here as attorney for Irvin W. Masters, Inc., the defendant, as well as Collins.

Mr. Beehler: That is right.

Mr. Freeman: So that any service of any papers upon you by the plaintiff is service upon both defendants?

Mr. Beehler: Yes. [5]

FREDERICK E. AMON, JR.

of lawful age, called as a witness on behalf of the Plaintiff, as provided by the Rules of Civil Procedure for the District Courts of the United States, being first duly sworn, as hereinafter certified, deposed and said as follows:

Direct Examination

By Mr. Van Sciver:

Q. 1. Please state your full name, age, and residence.

A. Frederick E. Amon, Jr.; age, 39. I live at 766 Quilliams Road, Cleveland Heights, Ohio.

Q. 2. By whom are you at present employed?

A. I am presently employed by The Parker Appliance Company.

Q. 3. What is your position with that company?

A. My position is Manager of Aircraft Sales.

Q. 4. How long have you held that position, Mr. Amon?

A. I have held the position under that title since June of 1946.

(Deposition of Frederick E. Amon, Jr.)

Q. 5. How long have you been employed by The Parker Appliance Company?

A. Since March of 1936.

Q. 6. What were your duties prior to the time that you [6] became Manager of Aircraft Sales with Parker Appliance?

A. I was employed as a Sales Engineer in 1936. For about two years I traveled all over the eastern part of the country as a Sales Engineer contacting our customers, mostly in the general industrial field rather than aircraft at that time. That was people like the machine tool trade, construction equipment, power plant, and refineries. Then in about 1938—perhaps even a little earlier than that—I started contacting the aircraft industry, the United States Army Air Corps at Wright Field, the Bureau of Aeronautics at Washington, and the Navy Aeronautical Laboratories at Philadelphia. In 1938, late, the Aircraft Industry started to get a lot of these foreign airplane orders in preparation for World War II, and I think from that time on I spent practically all of my time on the aircraft phase of the business, clear through until at least after VE Day. With the big upsurge in war orders, our problems of scheduling shipments and handling this influx of orders got to be so great that I spent a good share of my time on that. That would be particularly 1941, late, on through '44, say. 1941 or 1942, I was appointed Sales Manager, and then after VJ Day the company wanted to get back in the industrial market. We expanded our sales division

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and a General Sales Manager was employed, and in June of '46 I was appointed Aircraft Sales Manager and have worked [7] on aircraft ever since exclusively.

Q. 7. During your employment at Parker Appliance Company, have you had any experience with fittings?

A. Yes; a great deal. All of my early experience with Parker as a Sales Engineer had to do very largely with fittings. Now, the fittings business was a much greater total percentage of Parker's total business at that time than any other group.

Q. 8. Briefly, just what are some of the experiences that you have had with fittings during that time up to the present time?

A. Well, I contacted a great many different industries and plants, talking to engineers and purchasing agents to convince them to buy our fittings, and I worked with them as they started to use them and handled service problems, made trial installations, helped set up procedures for proper flaring and installing of fittings. I made recommended fitting layouts, selected bills of material for installation. I also worked very closely with our engineering group at the plant in working out solutions to service problems and design of special parts, new applications as they came along. One of those would be work done in the high-pressure steam power plant field with the new high-pressure generating units in boilers being adopted.

(Deposition of Frederick E. Amon, Jr.)

Q. 9. You say that you have worked on a number of installations [8] in the field?

A. Yes; I have.

Q. 10. You actually know how these fittings are used and the problems involved with them because of that work?

A. Yes; I know a great many of those problems from first-hand experience.

Q. 11. Would you tell us some of the uses for fittings of the type involved in the suit with seamless tubing?

A. Well, there are really a great many uses for flared type fittings of this type. The reason the Parker fitting was so widely adopted was its ability to meet the requirements of high-pressure systems. A brass flared fitting with copper tubing, which was most commonly used for such things as gasoline lines, automobiles, oil burners, low-pressure lubricating systems on machinery, had not been generally used on high-pressure systems. Parker actively went after the business in this high-pressure field. Parker was at least among the very earliest of any manufacturer in this field that applied the flared fitting with steel tubing; that is, seamless steel tubing. It was adopted very rapidly, particularly in the machine tool industry where they were in an expanding program of applying hydraulic principles of operation to all types of machine tools.

Q. 12. You speak about high-pressure installations. What [9] degree of accuracy is required in fittings in high-pressure installations?

(Deposition of Frederick E. Amon, Jr.)

A. Well, in high-pressure installations you require a high performance type fitting.

Q. 13. What is the reason for that, or reasons?

A. Well, the work that's required to be done by the fitting in maintaining a pressure tight mechanical seal on tubing under very high pressures is such that you have to have a fitting that is designed for that purpose, and it has to be made within rather close limits of the dimensions for detailed parts that are specified in order to make the fitting perform up to the requirements. The same is true of materials. A fitting for high-pressure service of any one detailed design, that is, one particular set of detailed matching drawings, might be entirely satisfactory in one material but completely unsatisfactory in a different material.

Q. 14. Is it necessary that fittings in high-pressure systems be absolutely leak proof?

A. The answer is yes. Any leakage is undesirable. It may be of varying degrees of seriousness, depending on the type of system you are talking about.

Q. 15. Well, you mentioned that these fittings were used in aircraft. Could you give us a few examples where in aircraft the flared type fitting is used today? [10]

A. The flared type fitting in aircraft today is used on the fuel lines which carry fuel from the tanks to the engines. It's used on the hydraulic power systems for landing gears, for retracting wing flaps, for operating various devices where

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hydraulic power is used. In military planes it's used on bomb bay doors. It's also used in the instrumentation system on an airplane in connection with flight instruments, most of which will operate on air pressure or vacuum. It's used for hydraulic feathering of propellers. It's used in the de-icing and anti-icing systems other than the thermal type.

Q. 15. Why is it that piping systems where these fittings are used are necessary in aircraft?

A. If I understand the question correctly, you say, why are piping systems necessary in aircraft? Well, without atomic power, so long as we fly airplanes burning gasoline or kerosene or anything similar, we must have piping systems to carry that from the fuel tanks, which store the gasoline in large quantities which are scattered through the airplane in the main body of it or fuselage and out through the wings. Now, that gasoline must be carried to the engines, which may be one or more. The P-36 has six engines, and they are adding four more jet engines.

Q. 16. Because of the fact of remote control in airplanes requiring piping systems? [11]

A. Oh, definitely; yes. That is particularly true with respect to the hydraulic systems. Now, that might be done by other means, although—that is, when I say “other means,” there are possibilities of using electric power, but hydraulic power is selected by aircraft designers as a source of power to do much of this work, and a great part of that is remote control. Hydraulic systems are used for

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augmenting manual control, such as in boost systems on the controls for the elevators and ailerons and rudder that direct and guide the airplane.

Q. 17. What are some of the pressures that are used in such hydraulic systems?

A. A common pressure for hydraulic systems on the airplanes being designed and built today is 3,000 pounds per square inch. They are referred to as 3,000 p.s.i. systems.

Q. 18. Is that considered a high-pressure system?

A. Yes; that is a high-pressure system. Not a great number of years ago the pressures were generally in the neighborhood of 1,500 pounds per square inch maximum. In the general use of hydraulic power in fields other than aircraft 3,000 p.s.i. is a high pressure.

Q. 19. Are the requirements for piping systems and these fittings any greater when you go from the lower pressure, say, 1,500 pounds to, say, 3,000 pounds pressure? [12]

A. Well, yes; very definitely. The problems of handling 3,000 pounds pressure compared to 1,500 pounds are much more than twice as severe.

Q. 20. What bearing does that have on the fitting problem?

A. Well, under the requirements of these high-pressure systems, the fittings, along with all other units in the system, have to do a much better job to stand the much greater loads that are put on them, much greater stresses that are put on them.

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Q. 21. When you speak of a 3,000 pound pressure system, is that the peak pressure that exists in that system?

A. No; that is not necessarily the peak pressure. That's referred to as the operating pressure. Peak pressures in hydraulic systems for any given operating pressure may run much higher. All those things are determined by the actual system you are speaking of, but pressures fifty per cent higher as momentary surges or peaks are very common.

Q. 22. Does that give rise to any problems as to the strength of the fittings, vibration problems, or anything of that nature?

A. Yes; it does, particularly in the sense that these surge pressures or peak pressures are applied very suddenly and they are shock pressures. Requirements on [13] fittings to withstand such shock pressures are much greater than a fitting that would just be required to withstand a slow buildup to that pressure and just hold it. It's also very necessary to have a high safety factor on high pressure systems which are subject to surge pressures or shock pressures, when you are talking about systems in which there is a high velocity flow. Speaking in general, when you go to higher pressure systems on airplanes, you automatically get along with it higher velocity of fluid through the lines. The fluid has weight, and sudden stopping of this fluid by the closing of the valve creates a physical impact shock on the system. The fittings and the tubing installation has to withstand these shocks

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without failure. And their effect is not the same actually as just a buildup of pressure inside, it's a ram effect or a hammer effect. You have heard it in your water pipes. Sometimes you close a valve and make it a very loud bang. You can actually feel the pipe jump in your hand. That's the type of effect I am speaking of.

Q. 23. With these high pressures is there any tendency for the pipe itself to whip, like a fire hose?

A. Oh, yes; there certainly is. If the tubing is not properly supported and bends and at rather frequent intervals along its length, and if it is not fully supported at the fitting connections, you do get this whip, [14] which may give the effect of a mechanical vibration. The tubing will actually vibrate so that you can see it. As the fluid passes around a bend in tubing or as it hits an elbow and has to change directions suddenly, the tendency of the fluid passing through there is to straighten out that bend. The higher the velocity flow, which goes along with higher pressures in lines of the same size, the greater that effect is.

Q. 24. Is there any tendency on a piping system where a bend is close to a fitting that the pipe has a tendency to pull out of the fitting?

A. Yes; for the same reason that a flow hitting a valve which suddenly closes tends to make the whole valve move in the same direction that the flow is passing also can be applied to the flow passing through a fitting and then to a bend close to the fitting. The tendency of the flow there is to

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carry the tubing at the bend along with it and move it away from the fitting.

Q. 25. Do any other types of vibrations have to be considered in the design of fittings for this type of operation?

A. Yes; there is the mechanical vibration problem. In aircraft particularly, where every effort is made to keep the weight of the whole plane at a minimum, and where you have engines of a very high horse power rating, compared [15] to the weight of an airplane as against a bus, for example, where you have a big engine but compared to the weight of the bus it's much less, the high horse power of an airplane engine creates a very severe vibration problem in aircraft design and in installation of all kinds of aircraft installations, including fittings and tubing lines. The engines are mounted on flexible engine mounts. If you ever stood at the airport and watched an engine start, where you can see through the cowl ventilators, and actually see the engine cylinder heads, you will see it shake very visibly and over what would appear to be a matter of inches as it is getting started. Then as it levels down into a running speed, you won't see that shake any more, but it does transmit a continuous mechanical tremor through the whole airplane. If you ride in one of these modern airplanes and put your fingernail against a window, you very probably will feel a very definite tremor there all the time.

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Q. 26. Does that problem become more acute with higher horse power engines?

A. Oh, yes; very definitely. And it has become very acute in the jet propelled aircraft. There we are dealing with frequencies of vibration that are much higher than have had to be overcome in the reciprocating engine powered airplane. [16]

Q. 27. What is the effect of these vibrations that you have been talking about in so far as the joint between the tube and the fitting is concerned?

A. The piping lines run through most of the sections of the airplane and they are clamped at various points and attached to end fittings which are attached to units mounted in different basic parts of the airplane. The fact that the whole airplane vibrates means that one part moves with respect to the other and that makes a continuous flexing of the lines and joints. It's particularly bad where you come to the terminus of a line and it's attached to a heavy unit. A heavy unit doesn't just vibrate with the line that's attached to it. Now, this type of vibration, when you consider lines running from an engine to the fire wall behind the engine, can be very severe. At the present time, it's almost impossible to use rigid tubing with flared fittings on that kind of installation, because the vibration is so great. However, not a great number of years ago that was done and a high performance fitting was required. Now, conditions in other parts of the airplane today vibrationwise are almost as bad as

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they were several years ago connecting directly to the engine.

Q. 28. What is the effect of vibration on a tube with an improperly designed fitting?

A. A tubing under vibration tends to work harden, [17] and most materials used in tubing, and the longer the vibration continues the more fatigue is set up in the metal and eventually it will **fracture**. If you have a poorly designed fitting, it will allow this tubing to fracture at an early time compared with the time it's subjected to this vibration. If you have a high performance fitting, you can expect that it will enable that joint to stand up for hundreds of hours of flying time on an airplane.

Q. 29. What might happen if the tube fractures in, say, a hydraulic system of an airplane?

A. The failure of a tubing line in a hydraulic system on an airplane will result in loss of some, if not all, of the hydraulic fluid in the system. At least the fluid in that part of the system where the failure has occurred will be lost, will run out, and not only will it make it impossible to use the hydraulic units in that system but the oil itself is inflammable and it is a bad fire hazard. Failure of a hydraulic line on a landing gear can cause a belly landing.

Q. 30. What about fracture of a fuel line on an airplane?

A. From a fire hazard standpoint, **fracture of a fuel line** is even worse than a hydraulic line. Fracture of a fuel line in the engine section of the air-

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plane is an [18] extreme fire hazard. Despite the best fire protection equipment that is available, there are many cases of engine compartment fires. Fracture of a fuel line in any other portion of the airplane, of course, is almost as bad. They have so much electrical equipment and there is a possible source of sparks, of course. You know about the DC-6 trouble that got so much publicity in the paper where fuel got in the wrong place in an airplane; not due to the fracture of a line but got near a heating unit and caused very serious fires.

Q. 31. Is it true that fractures of the type you have mentioned might cause loss of life and loss of the plane?

A. Oh, very definitely. It has caused many crashes during the period since the airplane has first been commonly used.

Q. 32. You mentioned the use of these fittings on high-pressure systems. Are the same type fittings used on lines where sub-atmospheric pressures exist at times?

A. Yes. There are a number of requirements in a modern airplane for use of vacuum. The fitting, in order to be an acceptable fitting, has to be suitable both with pressure and with vacuum.

Q. 33. So that you have to have a fitting that is suitable for lines carrying below atmospheric pressures up to 50 per cent above 3,000 pounds; is that correct? [19]

A. That is correct.

Q. 34. And it's the same fitting that does both jobs in some cases?

A. That is correct.

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Q. 35. You have mentioned the dangers of fractures of lines. What about just leaks from lines carrying hydraulic fluid or fuel; is there any danger there?

A. Yes; any leak is dangerous. In a hydraulic system, even though leakage may never accumulate any place where it can cause a fire, a slow leak may make the system inoperable without giving the crew the warning that they might get with a bad leak. In fuel, a slow leak, of course, is very bad, because no matter what you do with the gasoline it must be regarded as a hazard. A slow leak is generally a sign that you will have a bad leak before very long at that point.

Q. 36. Do you take into consideration in the Parker flared fittings these problems relating to vibrations? A. Yes.

Q. 37. Problems relating to the **prevention of leaks**?

A. Yes. The type of installation that Parker has always tried to get for their fittings have been the installations that require high performance fittings, and it's those very problems that we dealt with week after week, year after year. That was the whole central point, central [20] focus, on fitting design, a higher performance fitting.

Q. 38. Are your fittings designed to take care of the pressure range below atmospheric to perhaps 4,500 pounds?

A. When Parker first started to sell fittings and manufacture fittings for the high-pressure field, we

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didn't think so much of 3,000 pounds. We have always thought of vacuum lines, but in the 20 or 25 years since this has gone on, the fittings have been improved as these higher operating pressures and worse vibration conditions came into being to keep in step with the requirements.

Q. 39. As those problems developed, did Parker Appliance Company meet those problems with their fittings?

A. Yes; it's my honest opinion that they did. I can't say that they always got it the first time they tried. There have been long series of tests and try-outs on improvements, and even construction of special design, many of which turned out eventually not to be too good. It's all been a matter of continuous development of a tube fitting to meet these more difficult installation requirement as they were presented to us.

Q. 40. Do you happen to have any degree in engineering, Mr. Amon?

A. Yes; I am a graduate of the Rensselaer Polytechnique Institute and I have the degree of E. E. That's Electrical Engineer. [21]

Q. 41. Are the Army and Navy interested in the development of fittings for their aircraft?

A. Is the question, are they interested or were they interested?

Q. 42. Well, were they?

A. Oh, yes; they were interested by necessity. The requirements on fittings were so important in connection with the functioning of airplanes that

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they could not have possibly overlooked it even if they wanted. They have been very interested in it for many years.

Q. 43. What have you done in that connection personally?

A. Speaking of the airplane industry and the Army and the Navy, I started working with the United States Army Air Corps in the engineering laboratories, and with the Navy Department through the Bureau of Aeronautics in their laboratories at Philadelphia about 1948. I made regular contacts, which I remember being at least once a month, with personnel in those organizations. During such contacts, there was much discussion of fittings and fittings problems and service reports and new requirements to be anticipated, use of tools for flaring tubing to be used with fittings, and improvements in those tools.

Q. 44. Are you familiar with the fitting known as the type AC 811? A. Yes. [22]

Q. 45. Are you familiar with the type of flared fitting known as the AN fitting? A. Yes.

Q. 46. Did you work with the Army and Navy on both of those types? A. Yes; I did.

Q. 47. Just what did you do in connection with the two types of fittings?

A. The Army Air Corps, which preceded the present United States Air Force organization, was already using the AC 811 fitting as a standard when I first started to contact them. For several years, my work with them on the 811 fitting was centered

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around improvements and tests being run and application of the fittings to new requirements coming up. The Navy at that time was in a transition on fittings and were using some of the AC 811 fittings, some of those that preceded the AC 811 as an Air Corps standard——

Q. 48. May I interrupt? Just what period of time are you speaking of now?

A. I am speaking of the period of a year to two years, or, say, 1938 and into 1939 at this point. In 1939, I first started to work on the standardization problem on fittings.

Q. 49. Let me interrupt again. Do I understand the AC 811 preceded the AN fitting? [23]

A. Yes; the AC 811 fitting preceded the AN fitting.

Q. 50. Proceed.

A. From 1939 through well into 1941, a great share of the work that I did with the military services on fittings was in connection with this AN Standard which was being worked out at that time. We made—that is, the Parker Company made recommendations of various things to be used in a standard fitting, and I did liaison work between our engineering department and the engineers of the services on various technical matters in connection with the AN standardization program on fittings.

Q. 51. And that was late in 1939 and early in 1940?

A. That started early in 1939 or even in 1938.

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That's pretty far back to remember exactly, but I can sort of date it by when I got married, which was in 1939. The standardization work didn't start directly on fittings as a formal standardization program. It started first on screw threads.

Q. 52. Tell us just what transpired, to your personal knowledge, on the change-over from the AC 811 to the AN flared type fitting.

A. When you ask that question, do you mean the change-over as a standard or the change-over in the sense of change in the use of the fittings?

Q. 53. Well, let me ask you this: Was the AC 811 a [24] standard type fitting with the Army?

A. Yes; the AC 811 was the standard fitting used by the Army Air Corps.

Q. 54. Did they issue a standard drawing on that fitting?

A. Yes; they had a standard drawing in the Air Corps Standards Book.

Q. 55. Does "AC" stand for Air Corps?

A. Yes. I don't believe I have to qualify that. I can't say that that is the actual official designation, but everybody in the industry has always referred to it that way. It was an Air Corps Standards Book.

Q. 56. Now, tell us what happened in the transition from the time that the AC 811 was a standard to the time that the AN flared fitting became a standard, that you had personally to do with.

A. The AC 811 was formally made a standard in 1935, and it continued as the standard of the Air

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Corps until it was superseded by the approved release of the new AN standard, which was at the very end of 1940 or very early in 1941. The transition in use didn't take effect until after that date and extended over a period of a number of years. At the time the new standard was introduced, we were in almost peak war production and the airplanes we built were in all cases airplanes that had been designed [25] and first built with the AC 811 fittings, and so those were the fittings that were ordered to meet the production schedules, and the AN fitting was introduced on experimental airplanes and worked its way into production airplane contracts that followed from such experimental airplanes, and as the new airplanes replaced the pre-war airplanes, the usage and manufacture of the AN fitting crept up and finally passed the usage of the 811. Many of the airplanes in production during the war were changed in the middle of the program by orders from the services. Many of them, however, were not changed even as long as the airplanes were built.

Q. 57. But there was a substantial change-over at that time to the AN flared fitting; is that correct?

A. Yes; that is correct. By 1944, for practical purposes, we could almost say that the change-over was complete. We still sell AC 811 fittings as service parts. For example, on many of the DC-4's now operated by the air lines.

Q. 58. Is it correct that the new planes and prac-

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tically all of the present planes being manufactured for the Army and Navy, as well as private industry, use the AN flared type fitting?

A. Yes; that is quite correct with respect to military airplanes and also large commercial airplanes. [26] With respect to private airplanes, many models are not built with the AN fitting. The better class of private planes, such as the 4-passenger ships, including the Beech Bonanza, use the AN fitting.

Q. 59. I hand you a fitting, which we will mark "Amon Deposition Physical Exhibit 1."

(Fitting marked "Amon Deposition Physical Exhibit 1.")

Q. 59. (Continuing): What type of fitting is that?

A. This is an aluminum alloy AN flared fitting.

Q. 60. What size, do you know?

A. That is a Size 8.

Q. 61. Is that a Parker flared fitting?

A. Yes; it has the Parker symbol on the metal.

Q. 62. You say that is an AN fitting. I note there is a part cut away there. What is the purpose of that?

A. The purpose is obviously to show the internal construction. This fitting has a tube in it. It's been assembled and then cut away to show the makeup of the coupling to make a pressure-tight seal.

Q. 63. So Exhibit 1 is an AN fitting with a portion cut away to exemplify the construction; is that correct? A. That is correct.

(Deposition of Frederick E. Amon, Jr.)

Mr. Van Sciver: I offer this in evidence as Amon
Deposition Exhibit 1. [27]

Mr. Beehler: May I see it?

Mr. Freeman: Off the record.

(Discussion, off the record.)

Q. 64. Does the Parker Appliance Company sell fittings of the type exemplified in Exhibit 1 to others besides the Army and Navy?

A. Yes. Particularly we sell them to companies who build airplanes, commonly known as airplane manufacturers, and to companies building aircraft engines.

Q. 65. Could you give us the names of a few of those companies that Parker sells to?

A. Yes. Boeing Airplane Company, Douglas Aircraft Company, Lockheed, North American, Consolidated Vultee, McDonald Aircraft, Drummond Aircraft, Republic Aviation, the Glenn L. Martin Company, Fairchild, General Electric.

Q. 66. Do you know what General Electric used the flared fittings for?

A. Yes; the General Electric Company is purchasing them today for use on the TG-190 jet engine, which is in production.

Q. 67. That is for jet propelled airplanes?

A. Yes; that is correct.

Q. 68. You mentioned a number of applications for flared fittings in seamless tubing. What types of piping were in general use for some of these

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installations prior to the [28] use of the seamless tubing with flared fittings?

A. In general, pipe was used, iron pipe, or perhaps pipe with tapered pipe threaded connections. For smaller lines, in airplanes, they used seamless copper tubing but with a non-flared fitting. It was a fitting in which one of the fitting parts was soldered to make a bond with the end of the tubing so that it could be in turn clamped against a fitting to make a joint.

Q. 69. Does the flared type fitting have any advantage over the soldered type fitting that you just mentioned for aircraft?

A. Yes; it has a number of advantages.

Q. 70. Will you state what they are?

A. Copper tubing, which is ideally suited for use with any soldered or brazed connection, has two undesirable characteristics on aircraft: One is its poor weight-strength ratio compared to aluminum tubing, for example; the other is that it has work hardening characteristics, which mean that it would fracture under vibration more quickly than many other alloys, metal alloys that can be used in tubing but which may not be suited for soldering.

Q. 71. You mentioned that iron pipe had been used in some installations, too. Do flared fittings and seamless tubing have any advantages over iron pipe? A. Yes; many advantages. [29]

Q. 72. Will you state what they are?

A. These advantages have been so widely recognized that the flared fitting with a relatively thin walled seamless tube was adopted in use so widely

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for hydraulic systems in the industrial field. In using pipe at the operating pressures required, they in most cases used extra heavy or double extra heavy pipe, which means pipe of a much heavier wall thickness to withstand the internal pressures. Going to an extra heavy pipe of any one nominal size, such as a $\frac{3}{4}$ inch pipe, gives you a smaller hole through the center than you have on standard pipe, and if you want a big inside hole to get the required flow through the lines, you have to go through a bigger sized pipe, which means bigger fittings, and they take more room. The pipe fittings, whether they are standard weight or double extra heavy weight, are all assembled by cutting threads on the end of the pipe and screwing it into a fitting. These threads are exposed at the fitting and are the weakest point where the line may be expected to fail. In other words, you use a heavy pipe to get high strength and then you cut these threads right in the wall of the pipe, which means you might as well have used a thin pipe with a heavy section on the end.

Q. 73. And fracture is more likely to occur at that point than other places in the pipe? [30]

A. That is correct. When you use pipe, in order to disassemble it and get it off a piece of equipment so that you can service valves or replace valve seats or take off hydraulic cylinders or replace packings, you have to disassemble in many cases quite a section of piping because you have to go some place where there is a union provided in a line in order

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to break it. With flared fittings and a seamless tubing, you can use a much thinner wall in the first place for the same strength, because you do not cut any threads on the outside of the tube. This means that you can use smaller size lines and fittings for the same flow capacity.

Q. 74. Does that reduce the weight for the same flow capacity also?

A. Yes; it reduces the weight very appreciably and it reduces the amount of room required to get the lines installed and in place. You can put a number of small lines in a small place, cramped quarters where there isn't much room to get them, if you use small lines, whereas with pipe you would have to go through great complications to get them all in there.

Q. 75. Is the weight factor and the factor of being able to assemble and disassemble in cramped space of any particular importance in the aircraft industry?

A. It's of vital importance in the aircraft industry [31] in both cases; that is, for weight reduction and for ease of assembly and disassembly and the ability to get more lines in a small space. Airplanes are designed to carry a certain pay load or accomplish a certain mission. The less weight of airplane you can have for the required pay load the more efficient the whole airplane will be. That permits the use of smaller engines for the same speed and permits advantages of all kinds. It's the thing towards which all aircraft design is really directed.

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In the military picture we also have high speed in combination with low weight as a design requirement, and operations at high speed bring in additional strength requirements which make it even more necessary to keep the weight at a minimum where it is permissible to do it and still have units that will function properly.

Q. 76. What about the facility of the assembly and disassembly in cramped spaces?

A. In order to get all of the things in an airplane that have to go in it, you need a body or a fuselage. That has to be streamlined to keep down wind resistance. In striving for the idea combination of strength and weight-carrying capacity and streamlining, you run into almost unbelievable ways of putting things inside the shell of the airplane.

Q. 77. As a matter of fact, they used some pigmies during [32] the war, didn't they, to assemble some parts in airplanes?

A. Yes; that is right.

Q. 78. Go ahead.

A. With this high premium on space, it's vitally important that units of all types, and particularly these fittings and tubing lines of which there are a multiplicity, be put into the smallest possible space. That means that they are then very close together and they are very hard to get at when you assemble them and tighten the joints and hard to get at when you disassemble them to remove units for repair.

Q. 79. Does the Parker flared fitting permit the

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assembly and disassembly in these cramped spaces?

A. Yes; the Parker flared fitting is one of the best designs to accomplish this purpose.

Q. 80. What is that?

A. Starting with the fact that on tubing systems installed with flared fittings every joint may be regarded as a union where the line can be disconnected, the Parker fitting permits the line to be removed——

Q. 81. You are talking about the type that you have there in your hand, Amon Deposition Exhibit 1?

A. Yes. (Continuing)—— permits the line to be removed with the minimum amount of juggling or interference with other lines or other parts of the airplane after the [33] joint is disconnected. When the nut is unthreaded from the body, it can be slipped back conveniently out of the way, even though the fitting may be immediately adjacent to a close bend, and then by separating the fitting from the body, that is, separating the tubing from the body, only a very short distance, as represented by the depth of the flare, you can slip it to one side and pull the line free.

Q. 82. What would happen if the sleeve and the nut jammed in a fitting?

A. If the sleeve and the nut jammed, it might be difficult to move the nut back along the tube to permit removing the tube without interfering with other parts. This is particularly true if there is a bend close by which would prevent the sleeve from

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passing around the bend, although permitting the nut to pass around. Many lines are installed with identification markings around the tube to show what kind of fluid is in the line, and that would interfere with the sleeve sliding back to get out of the way so that you could slip the tube free.

Q. 83. Is there anything in the construction of the fitting that you have in your hand that will prevent the nut and sleeve from jamming, and, if so, what is it?

A. This fitting which I am looking at, Exhibit 1, incorporates a feature that was introduced into these [34] fittings by Parker specifically to assist in that problem. There are other advantages at the same time, but with the higher wrench torques that were required at the operating pressures of hydraulic systems, as well as other systems, went up, it meant that there was more likelihood of the fitting being distorted sufficiently to lock the sleeve and nut together, and this fitting includes a relief or an angle on the outside of the head of the sleeve here which enables the nut to remain free of the sleeve when it's loosened from the body of the fitting so that it can be moved out of the way.

(Recess.)

Q. 84. What comparison is there in pressure drop in iron pipe or in seamless tubing with flared couplings?

A. There is a very wide difference in favor of much lower pressure drop through seamless tubing and flared couplings. Seamless tubing is smoother

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inside than the pipe, which provides lower pressure drop through the whole system. When flared fittings are used with seamless tubing, the number of fittings are kept at a minimum by using bends in the tube wherever possible instead of adding extra fittings, such as elbows, to make these bends. Elimination of any bend reduces pressure drop, and the substitution of a smooth sweeping bend for a sharp right angle bend also reduces pressure drop, and the fitting used with [35] threaded pipe, as an elbow, has a non-uniform section through it in terms of differences in area, which also increases the pressure drop. The center portion of the fitting where it is machined out to receive the threaded-in pipes at each end is larger and results in increased turbulence of the flow as it passes through.

Q. 85. Are there any advantages in general installations with respect to decreasing the pressure drop?

A. In hydraulic systems we are striving to push oil through a piping system from a pump to some other mechanism where it will do some good, and the quantity of oil required is important and the pressure at which it reaches the unit where it is to do the work is important. Greater quantity gives faster speed and higher pressure means more work with a smaller unit, such as a hydraulic cylinder or a hydraulic lift. Higher pressures mean more work can be done with a smaller work-producing unit.

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Q. 86. Is that true in any fluid-carrying system where you are forcing fluid through a line? In other words, is your answer limited to a hydraulic system?

A. No; it's not limited to a hydraulic system, although I mentioned in hydraulic systems we are trying to do work. Many fluid systems are not for the purpose of doing work but moving the fluid. They want to get the fluid from one place to another. That would be typical of a [36] gasoline piping in an airplane. You have to get the gasoline from the tanks up to the engine and then it burns in the engine. That's where the work is done. But you have to pump it through the piping from the tanks to the engine, and with a minimum of pressure drop in the system you require less work done at the pump, meaning smaller pumps and lighter pumps and less consumption of power in order to get the required quantity of fuel to the engine.

Q. 87. So that generally you get the fluid where you want it with less work; is that correct?

A. Yes; that is correct.

Q. 88. In aircraft, is it particularly important that any particular phase of aircraft have a low pressure drop in your lines?

A. Yes; it's particularly important from the weight standpoint. To handle the same amount of fluid through a smaller line with the same amount of pressure reduces the weight of the lines and the fittings.

Q. 89. How about in vacuum fuel lines?

A. In vacuum fuel systems and suction type

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fuel systems another reason for low pressure drop becomes very apparent and that is in precluding vapor lock.

Q. 90. What is vapor lock? What does that term mean?

A. Gasoline includes air. Air dissolves in gasoline. As long as you keep some pressure on the fuel, you will have [37] some air in there, but it won't hurt anything. If you suddenly release the pressure from the fuel, the air will come out, it will boil. In an airplane fuel tank, as the plane takes off from the ground and goes rapidly to a high altitude where the atmospheric pressure falls off to a portion of what it was at sea level, there is a vaporation and loss of air from the fuel into the tank. As gasoline is passing through a fuel system of the suction type, you have a limited amount of pressure available at the tank end to make the fuel pull through. Now, that is the atmospheric pressure. Unless we are speaking of pressurized tanks, which we won't speak of here for the moment. You may have booster pumps in many airplane fuel tanks, but that is not what I am speaking of as a suction fuel system. In a suction fuel system you have a pump on the engine which forces fuel through the engine and under pressure, but the pump has to be kept filled and a suction is created at the pump inlet. The only thing that makes the fuel flow into the pump is that this suction at the fuel pump inlet will be less than the pressure tending to make the fuel flow through the line. With limited pres-

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sure at the source as in the tank, with too much pressure drop, the fuel will not go through the line fast enough to keep the pump full and you get formation of a vapor there as you would in the tank itself as the airplane [38] goes up to a lower pressure. That causes malfunctioning of the pump in the sense that it will not maintain a continuous flow of fuel to the engine, and the engine may even clunk out, as it's spoken of. Even with booster pumps or with pressurized tanks, if you have electrical failures, you may have to operate under emergency conditions, wherein you only have the engine pumps to supply fuel, and there this vapor lock becomes a serious problem. It's particularly bad at high altitudes.

Q. 91. I believe you mentioned that the Parker flared fitting that is exemplified in Exhibit 1 could be assembled and disassembled in small, cramped spaces. May that type of fitting be assembled and disassembled a number of times? A. Yes.

Q. 92. Is there anything in the construction of the fitting, Exhibit 1, that affords that assembly and disassembly repeatedly?

A. Yes; there is.

Q. 93. What is that feature?

A. There are several things which are important in a fitting which is to be assembled and disassembled a number of times. First, the fitting parts should not be damaged when they are assembled, and neither should the tube be damaged. The construction of this fitting is such that when the nut is threaded onto the body, the tubing is [39] clamped

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between the sleeve and the body nose, but without any wiping or sliding contact between any portion of the fitting or its parts and the tubing. This means that there is a minimum of wear on the flare, and that in itself allows it to be assembled more frequently than a fitting where there is wear or damage to the flare.

Q. 94. What do you mean by wiping or sliding contact on the tube?

A. If the sleeve or any portion of the fitting after it's in contact with any portion of the flare tends to turn while it's in contact and under pressure, it rubs hard on the surface of that flare and tends to grind off the metal or roughen the metal. That can actually grind away metal or it can roughen the surfaces to the point where they would create leaks on re-assembly. On fittings used with aluminum alloy tubing, the wiping contact may be particularly bad because of the strong tendency of aluminum alloy parts to gall or actually lock themselves together under rubbing contact. I have seen examples of such galling where, when the parts are removed, some of the original metal of one part actually has stuck to the other part so hard that it pulled itself completely away from its body and came out with the mating part.

Q. 95. Proceed with your answer with respect to the constructional features of the fitting, Exhibit 1, that [40] permit repeated assembly and disassembly.

A. Will you repeat that question, please?

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Mr. Van Sciver: Will you read it back, please?

(Question read.)

A. I mentioned that to permit assembly and disassembly a number of times and still be satisfactory for use the fitting parts must not be damaged. The design of this fitting here in Exhibit 1 has a feature that prevents a locking of the sleeve inside the nut by limiting the distortion of the sleeve portion during assembly so that it does not assume any permanent distortion.

Q. 96. And what is that construction?

A. The portion of this sleeve that is subject to stress on tightening is the head end or the part adjacent to the flare. As a coupling is assembled tight, the nut pulls against the—that is, the shoulder on the nut pulls against the mating shoulder on the sleeve tending to drive it down against the flare harder, and this in turn, since the flare is at an angle, expands the end of the sleeve.

Q. 97. What permits that expansion?

A. The question is, "What permits that expansion?" A clearance is provided between the toe of the sleeve and the inside portion of the nut which is opposite it so that it can expand as the fitting is tightened, but still cannot [41] expand beyond a limited amount without coming in contact with the nut, at which point further expansion would be stopped.

Q. 98. What permits that? What causes that clearance that you just mentioned?

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A. Well, the clearance is caused by a difference in angular relationship between the inside surface of the nut and the outside surface of the sleeve where the two are opposite each other. The inside surface of the nut there is parallel to the center line of the tube, whereas the outside surface of the sleeve tapers.

Q. 99. Is that the construction that you mentioned which would permit or assist in assembly and disassembly?

A. Yes; that is correct.

Q. 100. And without a jamming of the nut and sleeve together, locking?

A. Yes; that is right.

Q. 101. I hand you a drawing, which we will mark for identification as "Amon Deposition Exhibit 2."

(Drawing marked, "Amon Deposition Exhibit 2.")

Q. 101. (Continuing): Would you mark on that drawing the angle on the sleeve that you were just talking about? First, mark the sleeve itself and note it as "sleeve." Then mark the nut and the body. Now, will you put the word "tube" on the tube? And will you mark the flare on the [42] tube?

A. (Witness does as requested.)

Q. 102. Do you know what the actual angle is on the outside of the sleeve in Exhibit 2?

A. The angle on the outside of the sleeve is one or one and one-half degrees.

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Q. 103. What do you call that angle?

A. I call it the sleeve head angle.

Q. 104. All right, will you mark that as the sleeve head angle?

A. (Witness does as requested.)

Q. 105. Will you mark the shoulder of the nut that contacts the sleeve; that is, the shoulder which is perpendicular to the axis of the tube?

A. You mean, the shoulder on the nut which engages the sleeve to pull it against the flare?

Q. 106. Correct.

A. I will mark that "nut shoulder."

Q. 107. And then will you mark the shoulder of the sleeve that the nut shoulder contacts?

A. (Witness does as requested.)

Q. 108. Is that drawing, Exhibit 2, an exemplification of the fitting, Exhibit 1, as far as parts are concerned?

A. Yes. It is not necessarily the same sized fitting. This is an enlarged drawing. [43]

Q. 109. Do you know what size fitting the drawing Exhibit 2 was made from?

A. I can't say from looking at this Exhibit 2 only what size it is. From the portions of the tube wall thickness here compared to the tube O. D. it should be a Size 4 or Size 5.

Q. 110. Does the drawing exemplify the Parker AN flared type fitting? At least one type and one size of it?

(Deposition of Frederick E. Amon, Jr.)

A. Yes; this drawing could be any size of the Parker type AN flared fitting.

Q. 111. And does it exemplify Deposition Exhibit 1? A. Yes; it does.

Q. 112. Will you describe specifically the three main parts shown in Deposition Exhibit 2 and state the general function of each of those parts?

A. The three parts of this fitting shown in Exhibit 2 are the body, the nut, and the sleeve. The function of these three parts working together is to engage the end of the tube, which is also shown on the exhibit, to make a pressure tight connection. The tube is flared out at the end in a bell shape with straight rather than curved sections on the inside and outside of the flare, and this flare on the tube rests against the mating cone-shaped nose on the fitting body. The sleeve slides forward on the outside of the tube and contacts the outside of the flare [44] opposite the point where it's supported on the inside by the body nose or cone. At this point the sleeve has a chamfer or conical recess that is approximately a matching to the outside angle of the flare. The sleeve at a slight distance back from the part where it contacts the flare has a narrow shoulder at right angles to the center line of the tube, and this shoulder is engaged by a mating shoulder on the nut in such a manner that when the nut is pulled forward over the shank or narrow diameter of the sleeve it engages the sleeve shoulder and tends to pull it down on the flare. When the nut is threaded onto the screw threads on the body,

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tightening of the nut squeezes the flare between the end of the sleeve head and the cone on the end of the body.

Q. 113. Do you know what the angles of the flared end of the tube are?

A. The flare on the tube is made under a specification covering those angles. The actual angles on the flare may vary slightly, depending upon the method used to make the flare, but if the flaring tools are so designed that they would give a flare that will fall within the specification, the angles on the flare will be approximately 37 degrees on the inside and 33 degrees on the outside.

Q. 114. What brings about the difference in the angles of the flare? [45]

A. When you flare the end of the tube, you stretch the metal at the end of the flare. If the tube had a given thickness before the flaring operation, it will have a lesser thickness at the end of the flare after you spread it to what corresponds to a larger diameter. The metal stretches uniformly around, and although the total amount of the metal in the tube is the same, it's been spread out to a larger diameter.

Q. 115. Do you know what the angle is on the inside surface of the sleeve head; that is, the one that contacts the outside of the flare?

A. That angle is approximately 33 degrees.

Q. 116. Is there any particular name given to that angle on the sleeve?

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A. I know of no particular name other than sleeve angle.

Q. 117. Will you mark that on the drawing?

A. (Witness does as requested.)

Q. 118. Is the testimony which you have given with respect to iron pipe generally true also with respect to threaded brass pipe?

A. Yes; that is true, with the possible exception that brass pipe is much smoother on the inside and outside diameters than standard iron pipe.

Q. 119. You spoke of these high-pressure installations, [46] both on aircraft and in other places, but primarily on aircraft, would lead pipe be suitable for such installations?

A. I can't imagine using lead pipe on any installation in an airplane, particularly in the hydraulic systems and the fuel systems, or even on low-pressure vacuum systems.

Q. 120. Why would lead pipe be unsuitable?

A. Well, its strength to hold pressure is very low compared to even aluminum tubing. To use it on pressure lines would require a very thick walled lead pipe. It's weight would be very high.

Q. 121. Do you know if flared fittings could be used for connecting lead pipe?

A. Yes; flared fittings can be used on lead pipe.

Q. 122. Would the problem be any different with flared fittings for connecting the type of tubing we are talking about, aluminum alloy, steel tubing for hydraulic systems, fuel lines, and the like?

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A. Oh, I'd say they are very different. I can't visualize lead pipe being used on any but low-pressure lines, very low pressure, and only where a minimum amount of pressure seal in the joint would be required. You wouldn't be able to put very much gripping pressure on a lead pipe without squashing the metal away from the gripping surface, unless you have a very wide contact area of gripping surface, [47] which in turn normally means a larger fitting or a longer fitting.

Q. 123. Does the lead pipe tend to flow at the flare when it is clamped?

A. Yes; under pressure other than very light pressure it would be squeezed out from between the clamping surfaces again, unless you have a very wide clamping area which permits a fairly high total clamping pressure, but the unit pressure on the metal can be made very low by spreading it over a very large area of metal.

Q. 124. If the fitting itself or the pipe had eccentricities or was not made to precision specifications, would the lead flowing, as you have just described, take care of those eccentricities?

A. It would under any of the standard pressure flared type fittings that I can recall. If you compare it with a rigid type, such as steel, which is very difficult to distort or move to fit in with eccentricities or imperfections on seats or the like, the lead pipe would relatively very easily be moved to conform to irregularities or eccentricities in fitting because it's so soft.

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Q. 125. Then there are objections to the use of flared fittings on lead pipe; is that correct?

A. Oh, yes; many objections.

Q. 126. Particularly on aircraft fittings? [48]

A. Yes. If I were to use any lead pipe on an airplane for any special purpose that might require it compared to some other pipe, I don't believe I would ever use a flared fitting.

Q. 127. What is the type of flared fitting which is sold by Parker to the aircraft industry at the present time? What do you call it?

A. The flared fitting sold by Parker to the aircraft industry at the present time is called an AN flared fitting or a Parker 3-piece AN fitting.

Q. 128. This AN fitting, that is a Government Standard fitting, I believe you testified to that before?

A. Yes; the AN fitting has been standardized on by the Air Force and the Navy as a joint standard for fluid connections.

Q. 129. Was it the Parker fitting that became known as the AN Standard?

A. These fittings are commonly known through the aircraft industry and even among personnel in the services as a Parker type fitting.

Q. 130. Is this fitting, Amon Deposition Exhibit 1, a Parker AN flared fitting? A. Yes.

Q. 131. Did you have anything to do personally with the development and adoption of the AN fitting by the Army and Navy? [49]

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A. Yes; the standardization on fittings was handled through the Aeronautical Board as a means of bringing together the Air Force and the Navy on requirements for the fitting and reaching an agreement, and the final standard was put out by the Aeronautical Board. During a period which covered almost two years just preceding the approval of this standard, there was a considerable amount of engineering contact and some investigation, and various design features and detailed dimensions to be selected for incorporation in this standard had to be reviewed and approved, and during that period I had a great deal of contact with representatives of the Aeronautical Board and with personnel in the Air Corps and the Navy in their standards groups and in their laboratories who were also interested in this problem. I made a number of different recommendations at various times of details to be considered in this AN Standard. I visited these people and brought back to our engineers information on the requirements they wanted to put in, and assisted in working out suggestions for accomplishing those, with consideration given to manufacturing procedures and methods and also performance requirements. When the AN fitting standardization program had reached the point that assignments had been made for the actual preparation of engineering drawings, the flared fittings [50] which were to be included in the general AN Standard, fittings of various types were delegated to the Air Corps at Wright Field for

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preparation, and I was in frequent contact with the Specification Standards Unit where this work was being done and presented recommendations on a number of phases of the detail work.

Q. 132. Do you know if the sleeve head angle that you have marked on Deposition Exhibit 2 was at any time in the AC811 fitting?

A. Yes; it was.

Q. 133. Was that done at the suggestion of Parker? A. Yes; it was.

Q. 134. And did you ever suggest that that same angle or that a sleeve head angle be placed in the AN fitting?

A. Yes; based on the improved performance that we had found in laboratory tests and the fact that the Air Force appeared to be getting better service on the 811 fittings that included this sleeve head angle, I did recommend to a group at Wright Field who were preparing these drawings that that sleeve head angle be included in the AN Standard.

Q. 135. Did you write a letter to Wright Field to that effect? A. Yes.

Q. 136. And did they actually include the sleeve head [51] angle on the AN Standard?

A. Yes; they did. When the drawings approved drawing, were first released, they included this sleeve head angle.

Q. 137. Is this a copy of the letter that you wrote to Wright Field, which is dated October 25, 1940?

A. Yes; this is the letter in which the recom-

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mendation that the sleeve head angle be included was formally presented. I wrote this letter.

Q. 138. You recollect that independently of the letter?

A. Yes; I remember a great many details of this whole standardization program independently of any letters.

Q. 139. Where did this letter come from, the copy marked "Copy" that you have in your hand?

A. This is from the company files at our Cleveland plant.

Mr. Van Sciver: I offer this letter, dated October 25, 1940, addressed to Assistant Chief, Materiel Division, Wright Field, Dayton, Ohio, Re Proposed Army-Navy Standard fitting, comprising five pages, and signed "The Parker Appliance Company, A. L. Parker, by" the initials F.E.A.:L.E.S. The letter is addressed to the attention of Captain R. C. Brownfield, Specifications Branch. I offer this in evidence as Amon Deposition [52] Exhibit 3.

(Letter dated October 25, 1940, from The Parker Appliance Company to Captain R. C. Brownfield, marked, "Amon Deposition Exhibit 3.")

Mr. Freeman: Has 2 been offered?

Mr. Beehler: I think so.

Mr. Freeman: By agreement of counsel, let the record show that the drawing referred to by the witness Amon has been offered in evidence as Amon Deposition Exhibit 2.

(Deposition of Frederick E. Amon, Jr.)

Q. 140. Does the Government put out drawings, AN Standard drawings, with respect to the AN flared fitting?

A. Yes; there are a series of such drawings covering the fittings that are included under the standard.

Q. 141. Does the Government likewise put out procurement specifications with respect to AN flared fittings?

A. Yes; there is a procurement specification that is shown on each of the AN Standard fitting drawings.

Q. 142. Is that AN-F-366?

A. Yes; that is AN-F-366.

Q. 143. Does the Government put out a standard test method for fittings?

A. Yes; that is AN-F-47.

Q. 144. I hand you a group of Army-Navy Aeronautical Standard drawings, as follows: AN-811, AN819, AND10102, [53] AND10104, AND-10105, AND10106, AND10108, AND10056, AND-10057, AND10059, Sheet 1, AND10059, Sheet 2, AND10061, AND10064, and AND10078. Are all those drawings that I have just handed you drawings which are put out by the United States Government relating to tubing and flared fittings?

A. Yes; that is correct.

Mr. Freeman: We offer in evidence the group of drawings just referred to collectively as Amon Deposition Exhibit 4. Copies of the drawings have been furnished counsel for Defendants.

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(Group of drawings marked, "Amon Deposition Exhibit 4.")

Q. 145. I hand you a pamphlet marked "AN-F-366. Army-Navy Aeronautical Specification fittings, fluid connection." Is that the procurement specification which you just mentioned which was issued by the Government covering AN flared fittings? A. That is correct.

Mr. Van Sciver: I offer that in evidence as Amon Deposition Exhibit 5.

Mr. Beehler: I have no objection to the offer of Exhibit No. 5.

(Procurement specification pamphlet marked, "Amon Deposition Exhibit 5.") [54]

Q. 146. I hand you a pamphlet entitled "AN-F-47. Army-Navy Aeronautical Specification fittings, method of testing tube," marked for identification as "Amon Deposition Exhibit 6." Is that the test and specification that you referred to in your testimony issued by the Government?

A. This is the test specification for these fittings. I didn't recall referring to it before.

Q. 147. That is the Government specification for tests on fittings; correct? A. That is right.

Mr. Van Sciver: I offer that in evidence as Amon Deposition Exhibit 6.

Mr. Beehler: No objection.

(Test specification pamphlet marked, "Amon Deposition Exhibit 6.")

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Q. 148. Referring again to Deposition Exhibit 2, the drawing of the Parker type flared fitting, is there any weight-strength advantage in the flared fitting with an outside or a sleeve head angle as shown in that exhibit?

A. Yes; there is. The portion of this fitting which is subject to the most stress under proper assembly tightening is the sleeve head. It's desirable to keep the size of the total fitting at a minimum for weight, irrespective of any material it may be made of. Holding the total fitting to a minimum size requires that a sleeve of a [55] minimum thickness be used, and since the sleeve is a separate portion from the remainder of the fitting, it can be made of a higher strength material than the balance of the fitting, providing greater strength with greater weight only in that part on which the material is changed, which is the sleeve.

Q. 149. Would that be true if the fitting became a two-piece fitting in effect by locking of the nut and sleeve?

A. If the fitting should become a two-piece fitting in effect, as you say, by locking of the nut and sleeve, it has also been stressed sufficiently that the sleeve head has been permanently deformed, and at that point there would be no particular difference with respect to strength, whether you had a stronger sleeve or not, but if you keep within the allowable tightening torque that will not result in a permanent distortion of the sleeve, you can use a greater allowable tightening torque with a higher

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strength sleeve than you could with a sleeve of a low strength material. In other words, it increases the maximum tightening torque that you can use without locking of the sleeve and the nut or other damage to the fitting if you use a higher strength sleeve.

Q. 150. Does the sleeve head angle bring that about? A. That is right.

Q. 151. To prevent the locking? [56]

A. That is one of the purposes of the sleeve head angle, to allow the use of higher tightening torques in order to assure pressure-tight seals on higher pressure systems without permanent damage to the coupling and with the minimum of use or damage on the tube flare.

Q. 152. Does the Parker type flared fitting have a self-locking feature? A. Yes; it does.

Q. 153. Is that brought about in any way by the sleeve head angle? A. Yes.

Q. 154. Will you explain that?

A. As the nut is tightened onto the fitting body with sufficient torque to make a pressure-tight seal between the sleeve head and the nose on the body, the sleeve head extends out at the toe or at the point where it contacts the flare. There is a wedge action between the toe of the sleeve and the outside of the flare. As the threads on the nut are pulled down, the sleeve is pulled down against this angle on the flare, and the flare tends to wedge the nose of the sleeve out to a larger diameter. In other words, it spreads at the nose.

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Q. 155. And that causes a self-locking?

A. Well, in spreading it at the nose, so long as you do not spread it sufficiently to permanently distort it, [57] you create a stress in the nose of that sleeve which is continually trying to make it go back to its original size and it provides a continuous grip on the flare.

Q. 156. Does that put the sleeve under tension at the nose?

A. Yes; the nose of the sleeve where it is expanded is under tension continuously while it's assembled.

Q. 157. Is there a commonly known term for the tension at the nose of the sleeve?

A. Yes; that kind of stress is known as hoop stress.

Q. 158. Or hoop tension?

A. Hoop tension or hoop stress.

Q. 159. Did you ever hear of wire locking of threaded parts together?

A. Oh, yes; we do a great deal of that in our plant on assembled valves.

Q. 160. Is that used in the aviation field at times?

A. Yes; it's used very extensively on our aviation products. We are required, in order to meet specifications for valves and similar accessories, to wire-lock parts that are threaded together or screws which are threaded into parts to hold parts together. Wire-locking is for the purpose of preventing them from loosening under vibration.

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Q. 161. Is wire-locking required in the Parker type flared fitting? [58]

A. No; it never has been required. The fittings have been used always without any special locking provision.

Q. 162. Was that because of the hoop tension that you just mentioned on the nose of the tube?

A. The hoop tension on the nose of the sleeve——

Q. 163. Sleeve. Pardon me.

A. ——does assist very markedly in making it unnecessary to provide any special locking between the parts of the fitting to keep them from unthreading.

Q. 164. In other words, when the parts are screwed down, there is a locking feature that prevents them from being easily unscrewed because of that hoop tension; is that correct?

A. Yes; that is correct. The hoop tension in the sleeve means that it is trying to contract back on a wedge-shaped surface which is the outside of the flare, and if it is to contract, it must back away, that is, slide down the angle of the flare, which means that in turn has to move back on the fitting, and that keeps a stress on the threads between the nut and the body, pulling them in contact all the time under this tension, which tends to prevent **them** from loosening.

Q. 165. Does that overcome any vibration tendency to unloosen the fitting?

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A. Yes; it has not been necessary to provide any [59] additional lock on these fittings under any conditions that I have ever seen or heard of, irrespective of how much vibration may be present, in order to prevent loosening.

Q. 166. Just what do you mean by wire locking? What does that comprise?

A. When two parts are threaded together, such as a nut on a bolt or a screw into a unit, you drill a hole through the head of the screw and a hole through the mating unit and run a small sized wire through those two holes in such a fashion that any tendency of one part to turn with respect to the other part must stretch or break the wire. In this case, to wire-lock it, you would drill a hole through the nut and a hole through the body, probably on the hexagon section where it is marked "body" on Exhibit 2, and connect the nut with that portion of the body by a wire running through the holes in each part, and the wire directed around the two parts so that any loosening motion of the nut would stretch or pull the wire, which has already been pulled up tight when the wire-lock was put on.

Q. 167. What can you say about wire-locking fittings, for example, in close, cramped quarters that you spoke of in your former testimony?

A. Well, wire locking of any kind is a nuisance and a headache and costly, even in production where you are working [60] on a bench, and if it were necessary to reach in in the very close quarters where many of these fitting assemblies are

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made as joints on the end of a line and find those small holes and get the wire through them and pull it up tight, it would be a headache of the greatest order. I can't see how it would be possible to do it on many of the installations that I have seen.

Q. 168. Is there any problem in flared type fittings of over-tightening?

A. Oh, yes; there is definitely a problem, particularly in the small sized fittings and particularly in small sized fittings with soft tubing. The normal torques required to make a pressure-tight seal on small sized fittings are so much lower than the torques that mechanics use when they tighten up screws and bolts and similar things that there is a natural tendency to pull them up too tight, which has been the cause of trouble many times and requires a lot of precautionary instructions to avoid such over-tightening.

Q. 169. Does the Parker type flared fitting shown in Deposition Exhibits 1 and 2 have any provision for lessening the possibility of over-tightening, or the ill effects therefrom?

A. There are several features of the fitting shown in Exhibits 1 and 2 which assist in preventing damage under [61] over-tightened conditions. In fact, these fittings, in order to pass the tests called for in the specification which was introduced as Exhibit 6, require repeated assemblies at two and a half times the maximum recommended torque for each size fitting, and for aluminum tubing on the one hand and steel tubing on the other hand there

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are standard recommended torque ranges provided, and in the AN Standard sheets, there is a minimum and maximum recommended, which is intended to give a range for practical installation purposes, but either of which is intended to be entirely satisfactory as far as maintaining a pressure-tight seal and resistance to vibration, but the coupling, in order to be satisfactory, has to withstand 15 assemblies and disassemblies at two and a half times the maximum torque. The use of a sleeve head which can be expanded without damage is of value in preventing damage due to over-torqueing.

Q. 170. Is that expansion due to the provision of the sleeve head angle?

A. The fittings, in order to be satisfactory, must be still usable after 15 assemblies or disassemblies and re-assemblies at two and one-half times the maximum recommended torque, and the sleeve head angle is definitely of value in that sense in that the fittings must be usable and the sleeve must not be permanently locked in the nut, even at such torques. [62]

Q. 171. Does the sleeve head angle in the Parker type fitting shown in Exhibits 1 and 2 have any advantage in so far as compensating for manufacturing inaccuracies? A. Yes.

Q. 172. State what they are.

A. The AN Standard drawings for the AN flared fitting, which Exhibit I here is typical, set up the specific detailed dimensions to which each of these

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parts are to be manufactured, and provide tolerances for those dimensions, and the procurement specification, which was Exhibit 5, calls for quality controls on finishes. However, in even precision manufacture of this type or high quality machine work of this type, there never is a perfect job. Parts tend to be slightly eccentric, considering one diameter with respect to another on the same piece, or the diameter of a thread with respect to some other machined part of a nut. The nose of the fitting may even be slightly oval. Those irregularities, which are each one by itself small, still are important when you have to make the flare on the tube contact and conform with the nose of the fitting, even with those irregularities or eccentricities. The sleeve, being a separate portion from the nut, and having provision for expansion at the tip, due to the sleeve head angle, introduces a feature in this fitting which more readily allows adjustment of the sleeve angle or the sleeve head [63] angle to the tube. If this were a rigid fitting, the distortion necessary to make the parts conform in order to get a good seal, despite small irregularities, will have to be taken either in the heavy section one-piece nut or the nose of the fitting or on the tube. With an aluminum tube it would be almost on the tube, which means that it might readily be unduly damaged. The flexible end of the sleeve can actually become oval under this hoop stress rather than remain exactly round, if necessary to conform with some irregularity on the flare.

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Q. 173. Then this hoop tension that you spoke of provides a uniform-bearing pressure or loading on the sleeve even though there are some manufacturing eccentricities; is that correct?

A. Yes; that definitely assists in accomplishing a uniform loading on the sleeve, and that will be particularly true where you use hard tubing such as steel or stainless steel tubing, which in itself sets up a strong resistance to deforming.

Q. 174. Does that uniform-bearing pressure assist in getting a tight seal?

A. Yes; it does. If it's necessary to distort a flare at one point in order to insure the minimum sealing contact at the other, in the first place, a high torque would be required, and these fittings are assembled under [64] controlled torque instructions. Once the installation is complete, leakages normally will be quickly found, but if it is just at the point where it might leak, the leak may not show up until later.

Q. 175. Does the hoop tension and uniform-bearing pressure have any effect as far as the possibility of pulling the tube out of the fitting is concerned?

A. On soft tubing the hoop tension in the sleeve head, just like the initial pressure on the sleeve head, tends to bite into the tube, and if there is no follow-up in the fitting to keep pressing, even though something may move, such as the tube flare gradually thinning a little bit, if there is no fol-

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low-up to keep that pressure on there, it might pull out.

Q. 176. Does the sleeve head angle increase the range of permissible wrench torques in any way?

A. Yes; it does. I think we have referred to this under a previous question.

Q. 177. How does it increase the range in the Parker flared fitting?

A. It allows a lower minimum range for an acceptable seal, because the sleeve head angle and the resulting ability of the sleeve head to conform to irregularities means that you can allow a lower minimum torque and still feel sure of a seal. On the maximum torque range, we are [65] limited primarily, on all of the small sizes of fittings particularly and to a lesser extent on the larger ones, by the maximum torque that can be permitted without damage to the fitting, and the sleeve head angle, in combination with this expansion of the sleeve at the toe which you get, allows you to use higher torques without damage.

Q. 178. I hand you a fitting, marked for identification as "Amon Deposition Physical Exhibit 7."

(Fitting marked, "Amon Deposition Physical Exhibit 7.")

Q. 178. (Continuing): How does that compare with the drawing, Exhibit 2?

A. This Exhibit 7 is a fitting that is typical of that shown on the drawing, Exhibit 2. It is a smaller size fitting. The body and nut and sleeve are steel and the tubing is steel.

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Q. 179. Likewise, the fitting marked for identification "Amon Exhibit 7," has a cutaway portion; is that correct?

A. Yes; that is correct. It is like Exhibit 1 in that it obviously has been assembled and then cut away to show the internal seat on the flare.

Q. 180. Is that a Parker type flared fitting?

A. Yes; that is correct. It was made by Parker.

Q. 181. And is that an AN flared fitting?

A. Yes; this is one of the AN flared fittings. The black [66] color on the steel fitting is used by Parker on the AN fittings.

Mr. Van Sciver: I offer this fitting, marked for identification "Deposition Exhibit 7," as Exhibit 7.

Q. 182. I hand you a drawing marked for identification as "Amon Deposition Exhibit 8."

(Drawing marked, "Amon Deposition Exhibit 8.")

Q. 182. (Continuing): Will you explain what that drawing illustrates? And in your explanation you might mark it with the same legends, where applicable, as Exhibit 2.

A. The drawing Exhibit 8 is also a typical Parker type AN fitting and differs only from the drawing Exhibit 2 in that the sleeve angle is different. This drawing Exhibit 8 shows the double differential angle on the sleeve and would be used with a soft tubing.

Q. 183. Will you mark on the drawing Exhibit

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8 what you have called the double differential angle?

A. (Witness does as requested.)

Q. 184. Do you know the angle of the double differential angle which is the lesser of the two?

A. The lesser angle is the one starting close to the original outside diameter of the flare. Now, that angle is $18\frac{1}{2}$ degrees. [67]

Q. 185. Will you mark that?

A. Mark the angle? (Witness does as requested.)

Q. 186. And then what is the angle of the second double angle?

A. The other angle of the double angle is out at the toe of the sleeve where it rests against the outside of the flare, and that angle is 33 degrees.

Q. 187. And the angle of the outside of the flare is also 33 degrees; correct?

A. Yes; the angle of the outside of the flare is approximately 33 degrees.

Q. 188. And the inside 37 degrees; correct?

A. That is correct; the inside angle is 37 degrees.

Q. 189. Would you mark on the drawing Exhibit 8 the same legends that you have placed on Exhibit 2; that is, body, flare, and so forth?

A. (Witness does as requested.)

Q. 190. Is that drawing Exhibit 8 exemplary of a Parker AN flared fitting, the type of Parker AN fitting?

A. Yes; it is exemplary of one of the small sizes of this group of fittings. The double differential

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angle is used only on the sizes from No. 2 to No. 6, inclusive, which are for $\frac{1}{8}$ inch O.D. tubing up to $\frac{3}{8}$ inch O.D. tubing, and it is used only with those sizes where aluminum tubing is used with the fittings [68]

Q. 191. In other words, that double differential angle is not used on steel tubing as exemplified by Deposition Exhibit 7; is that correct?

A. That is correct. Exhibit 7 is a size 4 or $\frac{1}{4}$ inch fitting, but is used with steel tubing and does not use the double differential angle.

Q. 192. I hand you a fitting encased in plastic, which we will mark for identification as "Amon Deposition Exhibit 9."

(Fitting marked, "Amon Deposition Exhibit 9.")

Q. 192. (Continuing): I will ask you if that is the same type of fitting that is shown in the drawing Exhibit 8?

A. Yes; this fitting, Exhibit 9, is a cutaway assembled fitting of the No. 5 size used with aluminum tubing and includes the double differential angle as shown in Exhibit 8.

Q. 193. Is that a Parker flared type fitting?

A. Yes; it is. It carries the Parker trade-mark.

Q. 194. And it is also an AN flared fitting?

A. Yes; it is. It is marked "AN" and the blue color identifies it as AN.

Mr. Van Seiver: I offer the drawing, marked for identification as "Deposition Exhibit 8," in evi-

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dence and also the physical [69] device, marked for identification as "Deposition Exhibit 9," in evidence.

(Thereupon, at 5:25 p.m., an adjournment was taken until Friday, May 6th, 1949, at 9:00 a.m. [70])

Friday, May 6, 1949, at 9:00 A.M.

Appearances:

As before.

Direct Examination

(Continued)

By Mr. Van Sciver:

Q. 195. Mr. Amon, with respect to the sleeve head angle on the outside of the sleeve of the flared fittings, does that angle have any effect with respect to the contact between the sleeve and the nut shoulder?

A. Yes; that permits achievement of the maximum area of contact between the sleeve head and the nut shoulder.

Q. 196. How does it do that?

A. The coupling in any one size is designed for a minimum size while still meeting the necessary performance requirements. For any one size coupling you start with an outside diameter of this tubing with which the coupling is to be used. This fitting, Exhibit 1, is a No. 8 fitting for one-half O.D. tubing. It's desirable to use the smallest di-

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ameter thread that is possible for the fitting body and for the nut. The space between the diameter of the thread and the outside diameter of the tube is all the space that remains into which the coupling parts have [71] to be incorporated. A part of that space is taken up by the necessary thickness of the shank of the sleeve where it extends back along the tube, and sufficient clearance must be provided to permit sliding the sleeve over the tube and sliding the sleeve through the nut. When those thicknesses and clearances are deducted, what's left is the maximum width of nut shoulder, and it follows that it is desirable to have that matched by the maximum possible width on the sleeve shoulder.

Q. 197. What is the advantage of having the sleeve and nut shoulder in contact at a maximum?

A. The contact between the sleeve and nut shoulder represents a bearing. It takes a bearing load, like a thrust bearing. When the nut is engaged on the body, the nut shoulder exerts pressure on the sleeve shoulder, as in a bearing, and it is necessary to keep that unit bearing pressure within certain limits or the fitting will not function properly, will not assemble and disassemble properly. It isn't necessary to hold any one given unit bearing pressure, just so long as the fitting functions properly. And if we can do that within the limitation of the smallest possible thread, we have a lighter coupling that will still perform all right.

Q. 198. When the sleeve head expands, that you

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have testified that it does, does it move forward with respect [72] to the flare of the tube?

A. Yes; the whole sleeve head must move forward with respect to the tube and the tube flare as it expands.

Q. 199. And that happens when the nut is tightened or brought home; is that correct?

A. That is correct.

Q. 200. Does that have any effect, the fact that the tube head can expand, on distorting or destroying the flare, preventing destruction or distortion of the flare?

A. Yes; it does in several respects. If we visualize the coupling assembled with soft tubing and consider that along with the fact that the mechanic in assembling the nut will pull it up to a required wrench torque, you find in a coupling of this type with a sleeve head that can expand that some of the energy put into making of the coupling by the mechanic is taken up in distortion of the sleeve head rather than entirely on distortion of the flare.

Q. 201. Referring to Deposition Exhibits 8 and 9, does that type of coupling also have an outside sleeve angle on it?

A. Yes; that's correct. That's marked "Sleeve head angle" on this Exhibit No. 8.

Q. 202. Is everything that you have said with respect to the sleeve head angle applicable to the couplings shown, [73] for example, in Exhibits 8 and 9?

A. Yes; that's right. Most of the previous ques-

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tions were about fittings shown in Exhibits 1 and 2.

Q. 203. So far as the sleeve head angle itself is concerned, is what you have said about 1 and 2 equally applicable to Exhibits 8 and 9?

A. Yes.

Q. 204. I notice on Exhibit 8 the term "Double differential angle" on the sleeve. Will you explain that terminology?

A. Yes; that's my own name for it. It is a double angle in that on the exhibit two separate angles are indicated by the arrows. One of these angles is at the very toe of the sleeve where it is in contact with the flare. That angle is marked "33 degrees." The other angle on the sleeve is marked as "18½ degrees." These two angles make a double angle. The differential angle is the angle between the 18½ degree angle and the matching 33 degree angle on the outside of the flare of the tube.

Q. 205. Does that smaller angle provide initial toe contact between the sleeve and the flare of the tube? A. Yes; it does.

Q. 206. Is that sometimes referred to as differential angle? [74]

A. Yes; that is what I refer to as differential angle.

Q. 207. Will you tell us what advantage, if any, there is in having initial line contact between the sleeve and the flare of the tube?

A. Initial line contact—

Q. 208. Or toe contact.

A. I was going to say that initial line contact

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on a soft material here such as aluminum tubing would not necessarily be any advantage or even desirable, whereas it might be on steel tubing, because you get a better pressure seal with a line contact, the general design principle, than you do with area contact. However, we have to use more than line contact on aluminum tubing in order to get enough assembly tightening on the fitting to give us proper joint makeup and resistance against loosening. That is, to establish any of the hoop tension that we spoke about before. Toe contact, as different from line contact, is desirable. The fittings shown in Exhibit 8 are used only in the small sizes; that is, up through sizes $\frac{3}{8}$ inch O.D. tubing and with aluminum tubing, which is relatively soft compared to a steel or stainless steel tubing. With aluminum tubing and with fittings of sufficiently rugged construction to stand up in service in these small sizes, it's desirable to do anything possible to [75] assist in getting the desired sleeve head expansion with the lower torques that we are dealing with, and, thus, making provision for contact at the very toe assists in setting up these desired conditions.

Q. 209. When the nut on the fitting shown in Exhibit 8 is brought home or tightened, is it true that the space that is shown on the exhibit between the sleeve nose and the flare of the tube more or less disappears? A. Yes; that is correct.

Q. 210. That space closes up?

A. That space closes down in this fashion: in

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tightening these fittings with any recommended torque range on aluminum tubing, the toe of the sleeve as it is pulled down on the flare does expand and at the same time it actually bites into the metal of the flare and sinks itself in in such a manner that the $18\frac{1}{2}$ degree angle shown on Exhibit 8 will also come in contact with the surface of the metal on the flare.

Q. 211. Then the drawing as shown, Exhibit 8, shows the parts before they are tightened up; is that correct? A. Yes.

Q. 212. Before they are fully tightened?

A. That is correct. This drawing would indicate that practically no wrench torque had been put on. In other words, finger tight; just pulled up in close contact. [76]

Q. 213. Does the differential angle of the fitting of the type shown in Exhibits 8 and 9 have any effect with respect to increasing or decreasing the resistance to vibration fatigue?

A. Yes; it does, particularly when a fitting of the size shown in Exhibit 8 is used on aluminum alloy tubing. Under vibration, the common point of failure of a joint is at the base or heel of the flare. That is where the flare angle meets the original tube wall. On the small sized fittings in particular there is a real risk of over-tightening, which may be ignorant or inadvertent but which in any case is still harmful to the fitting. The type of fitting shown in Exhibit 2, if used on aluminum tubing in these small sizes where we frequently find

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over-tightening, would almost completely pinch off the flare right at the base, leaving practically no metal there to resist vibration at its weakest point. When the differential angle is used, as shown on Exhibit 8, the over-tightening of the fitting at its very worst can no more than bring the toe of the sleeve in contact with the nose of the fitting by actually cutting the tip end of the flare clear off. As I said, that is at the worst condition. And even if you have such tightening, the point of cutoff of the flare as it's pinched between the very toe of the sleeve and the nose of the fitting will be out at some considerable [77] length away from the base of the flare. You will then have a shorter flare but one at least with a high per cent of its original length that is gripped between the $18\frac{1}{2}$ degree angle and the nose of the fitting.

Q. 214. You mentioned the fact that the nose of the sleeve would dig in to the flare slightly when the fitting is taken up. Is that due to the initial toe contact?

A. Yes; that's true. With this double angle sleeve, which is also called a modified sleeve, and it's also called a wedge-type sleeve, the 33 degree angle on the sleeve makes a narrow contact with the surface of the flare at the toe. That's what we spoke of as toe contact.

Q. 215. What is the extent of that surface on these fittings, do you know?

A. On the AC811 fitting, that is represented by a dimension on the drawings from ten thousandths

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to twenty thousandths of an inch, one being the minimum, the other the maximum.

Q. 216. AC811 or AN?

A. That is on the AC811. On the AN it is shown in a similar fashion. I am quite certain that that dimension is twenty-five thousandths of an inch with a small tolerance allowed. It's quite narrow.

Q. 217. Is there any advantage, and, if so, what is it, of the sleeve digging into the flare of the tube slightly, [78] as you have mentioned?

A. To have a sleeve which digs into the flare of the tubing slightly, particularly if that digging-in point is not immediately at the base of the flare or quite close to it, does have several advantages. If you would visualize this as used with hard tubing, a slight digging in on a very narrow contact would be ideal from a pressure-seal standpoint, but that digging in should be only slight in that case. With soft tubing, a digging-in at a distance away from the base of the flare tends to set up a bulge of metal on the end of the flare outside the toe of the sleeve, which in turn is resistant to pull-out.

Mr. Van Seiver: That is all. You may cross-examine.

Cross-Examination

By Mr. Beehler:

XQ. 218. Mr. Amon, when you first began your testimony yesterday, you mentioned the Parker fitting. What do you mean by the Parker fitting?

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A. Well, there are several fittings that are known as the Parker fitting. There are several fittings that I might refer to as the Parker fitting. In connection with these exhibits here, I refer to Exhibit 1 as a Parker fitting. [79]

XQ. 219. That isn't the only Parker fitting, though?

A. No; you are correct. Parker does make fittings other than this particular one.

XQ. 220. When you say that that is a Parker fitting, do you mean that that is a Parker fitting because of the dimensions and proportions, or because it was made by Parker?

A. Well, I mean both. The answer to the first is obvious, "Made by Parker," it would be a Parker fitting, but when I speak of a Parker fitting, or Parker-type fitting, I am thinking of the Parker three-piece type fitting with nut, sleeve, and body, and with these various features in it that we have discussed.

XQ. 221. Well, is it true, then, that you call it a Parker type fitting because it is a three-piece fitting?

A. Not that alone. There have been several Parker three-piece type fittings in the sense only of slight changes and improvements.

XQ. 222. Have they all been used on aircraft?

A. Yes; the Parker three-piece type fittings have all been used on aircraft, with the exception of certain very heavy and large size fittings that have been designed only for industrial applications.

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XQ. 223. Now, tell me, is it your contention, Mr. Amon, that the AN Standard fittings, that is, fittings made in accordance with AN standards, are synonymous with the [80] Parker fitting?

A. Yes; I consider them so.

XQ. 224. That is, is it your contention, then, that Parker originated the dimensions and proportions of the AN Standard fitting?

A. I would like to answer that with a little explanation, if I may.

XQ. 225. Sure.

A. I'd say that speaking in general the answer is yes. However, I don't mean to imply by that that every single dimension on this fitting was copied exactly from a Parker fitting. That would be an erroneous statement if I were to say so.

XQ. 226. Well, can you tell us which ones were copied from the Parker fitting?

A. I couldn't tell you exactly which dimensions were copied from a Parker fitting without actually comparing the drawings in detail right here now. The basic dimensions and proportions, I say, were copied in the sense that this fitting design and the details of it are only modifications or slight changes in the basic proportions and dimensions of the Parker fitting.

XQ. 227. Well, with respect to the angle on the body, is that copied from the Parker fitting?

A. Not exactly. There is a small [81] difference.

XQ. 228. On this fitting, throughout the whole

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series the angle on the body—that's the nose of the body—is 33 degrees. In the Parker fitting, that angle varies from approximately 35 degrees to as low as 25 degrees on different sizes.

XQ. 229. And on which series of fittings is that?

A. That is the Parker three-piece triple coupling, the one that I refer to as the Parker type fitting, which is the basis of this design. That's the AC811 fitting.

XQ. 230. Are you familiar with the NAF standards for fittings?

A. Yes. Not in as great detail as I am the Parker or AN series.

XQ. 231. You know, do you not, that the angle on the nose of the body of the NAF fitting is 33 degrees; isn't that true? A. Yes; that's true.

XQ. 232. Did Parker originate that angle?

A. The Parker Size 4 and 5 fittings, that is, the AC811 series, have either a 33 degree angle on the nose or one very close to it.

XQ. 233. Do you know which came first, the NAF or the Parker?

A. In that size fitting, speaking of Sizes 5 and smaller, any Size 5 and smaller, which includes the one I [82] just mentioned, the No. 4, that angle was on the nose of the fitting even before 1936 when I started with Parker. I don't know when it was put on exactly prior to that time.

XQ. 234. With respect to the nut of the NAF fitting, you are aware, are you not, that there is a conical internal flare on the nut which is designed to fit against the flare on the tube?

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A. A conical seat on the nut?

XQ. 235. Yes; seat, if you choose to call it that.

A. That is correct; yes.

XQ. 236. Do you know the angle of the seat of the nut of the NAF fitting?

A. I don't know at this time exactly what that angle is.

XQ. 237. That's 33 degrees, is it not? Excuse me. So as not to confuse you, I spoke of the body as having a 33 degree angle. I believe the body has a 37 degree angle; is that correct?

A. I can't answer specifically on the difference between 33 and 37, the angles are so close together. I do know that the angle on the nose of the fitting in the NAF series was a different angle by some small amount than the angle on the seat surface in nut.

XQ. 238. On the AN fitting, Mr. Amon, what is the angle on the nose of the body? [83]

A. On the AN fitting, the angle on the nose of the body is 33 degrees. No. Pardon me. The angle on the nose of the body is 37 degrees.

XQ. 239. And then the angle which you called here the sleeve angle is what on the AN?

A. That is 33 degrees on the sleeve used with large sized fittings, and on small sizes, that is, up to the $\frac{3}{8}$ inch or No. 6 size, you have the double angle, which is made up of 33 degrees and $18\frac{1}{2}$ degrees.

XQ. 240. Tell me, the relationship wherein the body has an angle of 37 degrees contacting the in-

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side of the flare and the sleeve inside angle of 33 degrees contacting the outside of the flare, did those angular relationships originate with Parker?

A. The answer to that question is that those specific angles did not appear as such in the Parker 811 fitting, although as I stated a bit ago, there were in the AC811 series of fittings different angles of those two surfaces that you mentioned.

XQ. 241. Tell me, are those angular relationships important?

A. Well, I can't say that they are not important. They are one of the things that is desirable in the design of a good coupling.

XQ. 242. Are those angular relationships critical? [84]

A. I hesitate to say that they are critical, although they may be critical under certain conditions of assembly or with certain types of fittings. If you speak about the AN fitting as it is presently shown on the AN standard drawings, and when we talk of the larger sizes of fittings used with soft tubing or when we talk of steel tubing, I don't consider those angles themselves as being critical.

XQ. 243. Well, suppose just for a moment we mention the smaller sizes where the sleeve is as pictured in your Exhibit No. 8. Are the sleeve head angles there critical?

A. Yes; they are critical there, since this sleeve is used with soft tubing and in small sizes.

XQ. 244. Did that double differential angle originate with Parker?

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A. You ask, did that double differential angle originate with Parker?

XQ. 245. Yes.

A. Well, I can't say that that particular double differential angle originated with Parker. That double differential angle is something very specific there, 33 degrees and $18\frac{1}{2}$ degrees, and it also represents a fitting in which the 33 degree angle is of a given specific length, and I can't say that those details originated with Parker. In fact, I don't believe they did exactly as those details are shown. [85]

XQ. 246. Well, the idea of the double differential angle did not originate with Parker; isn't that so?

A. I think I can say that that is so, answering the question as you put it, that the double differential as shown there probably did not originate with Parker.

XQ. 247. The idea of the double differential angle did not originate with Parker; isn't that correct?

A. I hesitate to answer the question when you say "double" and "differential." They are two different things entirely.

XQ. 248. Well, I don't mean to confuse you, Mr. Amon. What I mean to ask you is: Here in your Exhibit 8 on the inside of the sleeve you show a flare which is at two different angles, namely, $18\frac{1}{2}$ degrees and 33 degrees. Now, irrespective of the precise number of degrees, there are two different angles on the inside of the sleeve; correct?

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A. Yes.

XQ. 249. Did the idea of using two different angles on the inside of the sleeve originate with Parker?

A. I believe I can answer that no, not to my knowledge, did that originate with Parker.

XQ. 250. One more question about this particular kind of sleeve shown in Exhibit No. 8. Is the drawing of Exhibit 8 drawn to correct proportions? I appreciate that it's enlarged [86] some.

A. Yes; that drawing, certainly with respect to the proportions of the various elements shown on the drawing, one with respect to the other, it could be an enlargement of an actual fitting.

XQ. 251. I lay my pencil, Mr. Amon, on the portion which you have designated "33 degrees," and that 33 degree portion has a certain length. Now I lay my pencil on the portion which you have designated "18½ degrees," and that portion has a certain length. What is the proportion of the 33 degree length to the 18½ degree length? Is it half as long, or a third as long, or what?

A. On this particular drawing here, Exhibit No. 8, the 18½ degree angle flat surface is longer than the 33 degree. I can't say exactly how much longer it is on any one size, and it may not be exactly the same on one size as on another size, but this one appears to be 25 to 50 per cent longer, just from looking at the drawing.

XQ. 252. Thank you. Now, Mr. Amon, the relationship of the parts in Exhibit 8 are shown prior

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to the drawing up of the nut; is that right?

A. On Exhibit 8, the relationship of the parts indicates, I said, finger tight, but no distorting for full load pressure being put on.

XQ. 253. What is the specified clearance in the sizes [87] depicted in Exhibit 8 between the exterior of the butt end of the head on the sleeve and the interior of the surrounding portion of the nut?

A. On the basic drawings, that clearance is a few thousandths of an inch.

XQ. 254. How many thousandths?

A. I can't answer that question without checking the drawing as to exactly how much it is. There is a slight tolerance there, but beyond that only sufficient clearance to enable the sleeve head to slip inside the nut.

XQ. 255. Is not the clearance five one-thousandths of an inch?

A. Will you repeat that, please?

XQ. 256. Is not the clearance five one-thousandths of an inch?

A. That would be a reasonable clearance. I can't say that that is exactly the clearance.

XQ. 257. That's what the specifications call for; isn't it?

A. Well, I could check it by looking at the drawings. I do not keep all those details in my head. I don't remember the specific drawings.

XQ. 258. Do you have the drawings here?

A. Yes; the drawings were submitted as an exhibit.

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XQ. 259. Will you refer to them, please, and check that [88] dimension?

A. Will it be satisfactory if I check one size?

XQ. 260. Certainly.

A. I am not even certain that these clearances are the same for all sizes.

XQ. 261. Check any size from the 2 to 8, any one of them.

A. On the No. 4 size, that basic clearance is five one-thousandths of an inch.

XQ. 262. Point out, will you, please, the clearance on Exhibit 8. Is the clearance shown there between the head of the sleeve and the inside of the nut?

A. Yes; there is clearance shown there.

XQ. 263. Will you point it out?

A. Very small clearance. You wish me to mark it? I can't mark it on the exhibit. It's right here at the heel. The two lines do not join in that there is a very narrow continuous white space between those surfaces. Is that what you speak of?

XQ. 264. That is right. Is that in correct proportion to the rest of the drawing?

A. Well, I would say that in my opinion it is.

XQ. 265. Very well. You have labelled on this drawing an angle which you have called the "sleeve head angle." That sleeve head angle is, in fact one and a half degrees, is it not? [89]

A. It's one degree, consulting the exhibit. I have just looked at it here.

XQ. 266. One degree? Very well. And the

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nose or tip of the sleeve, how much more clearance is there due to that sleeve head angle than there is at the base of the sleeve?

A. I couldn't answer that question exactly without calculating it or making an actual scale layout to measure it.

XQ. 267. Well, actually——

A. It will be some greater.

XQ. 268. Actually, it's about four one-thousandths, isn't it?

A. I can't say whether it's four one-thousandths greater—is that it?

XQ. 269. Greater clearance.

A. Greater clearance. I have never had occasion to check that specific clearance on loose unassembled fittings, so I say that your figure is probably—appears to be reasonable, but whether it's accurate or not, I can't say.

XQ. 270. Well, I appreciate that you can't figure those things in your head, but referring again to the drawing Exhibit 8, there is considerably more clearance shown there at the tip or free end of the head than there is at [90] the base of the head; is there not? A. Yes.

XQ. 271. And there is a far greater amount of clearance shown at the tip on the drawing than at the base; that is true, isn't it?

A. Yes; from the drawing, it would just appear that there is approximately at least twice as much clearance.

XQ. 272. Yesterday in your direct testimony

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you gave us considerable information about the advantages of tubing lines, I believe it was, in aircraft construction, and you mentioned among other things the fact that vibration is a big factor in aircraft design. Am I correct?

A. That is correct.

XQ. 273. And that a fitting which is capable of reducing vibration is better in that respect at least than one that is less capable of resisting vibration; isn't that true? A. Yes.

XQ. 274. It is true, is it not, Mr. Amon, that the flared fittings, the standard flared two-piece fittings, have a far greater capacity for resisting vibration than the three-piece fittings?

A. You refer to what two-piece fitting?

XQ. 275. Well, the NAF, for example.

Mr. Freeman: Beehler, can we agree that [91] when you were referring to an NAF fitting in your early questions of this witness that you were then talking about a two-piece fitting as distinguished from a three-piece fitting; is that correct?

Mr. Beehler: That is correct.

A. To answer your question, Mr. Beehler, it is not my belief that the NAF two-piece fitting is superior to the AN three-piece fitting under vibration. Now, I will have to go further by saying that there are a great many ways that vibration can be tested. With different types of equipment, with different kinds of tubing material and different sizes of fittings and different lengths of tubing. But when I say that I do not believe it is superior,

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I am speaking about performance in service, and it's certainly not feeling that it's superior on an over-all basis.

XQ. 276. There is a question in your mind, then; is that correct?

A. There is no question in my mind about performance in service.

XQ. 277. But so far as testing is concerned, there is a question in your mind; is that correct?

A. There is a question in my mind only to this extent: that tests, vibration laboratory tests, don't mean a thing unless you have something to compare with something [92] else. Now, most of those tests are tests on the tubing only, and it's very difficult to set up a test procedure that will give you a test on a joint rather than on the tubing itself.

XQ. 278. Is it your contention, then, that tests have no value?

A. Absolutely not. I certainly can't say that tests have no value. Tests are always of great importance in a preliminary evaluation and in searching out weaknesses, but I certainly would not say that you can duplicate service conditions in a laboratory test program, and I am sure that that's the common basis under which laboratory tests and development work is carried out through the whole aircraft industry.

XQ. 279. You are aware, are you not, that the NAF two-piece flared fitting is still quite widely used in aircraft construction?

A. In my opinion, the NAF fitting is used to

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a very limited extent in aircraft construction. There are some airplanes in service for which those parts are still ordered by the Navy as service parts, but although there are possibly a considerable number of individual fittings in service, the quantities of such fittings that are manufactured and sold today are far less than the AN Standard fittings. [93]

XQ. 280. One thing further with respect to vibration. You mentioned in your direct testimony that unsupported lengths of tubing had a tendency to whip and cause rupture at the joint; is that correct?

A. Yes; in tubing installations on fluid systems in airplanes in high velocity circuits, as on hydraulic systems, unsupported sections of tubing tend to whip under the action of the fluid flowing through them. The standard installation requirements call for a clamping of tubing to a supporting portion of the airplane at given lengths.

XQ. 281. Then when the tubing is properly supported, the vibration damage is greatly minimized; that's true, isn't it? A. That is true.

XQ. 282. And when the vibration damage is minimized, the importance of the fitting to resist vibration is diminished; that's true, isn't it?

A. That is true.

XQ. 283. Are you familiar, Mr. Amon, with breakdown tests on the triple fitting, tests made to determine failure of the triple fitting?

A. When you say the "triple fitting," do you mean the AC811 fitting?

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XQ. 284. Well, let's say, for example, the AC811. [94]

A. There have been a great many tests at different times run on fittings including the AC811 fitting, laboratory tests.

XQ. 285. Is it not true that the most common failure in the AC811 fitting is a failure of the sleeve?

A. Not a failure of the sleeve; no. That is a very uncommon failure in the 811 fitting.

XQ. 286. Well, that's true in the AN fitting, then, isn't it?

A. No. Now, may I ask you what you mean by the failure of the sleeve?

XQ. 287. Fracture of the sleeve.

A. I assume you mean fracture of the sleeve.

XQ. 288. Fracture of the sleeve.

A. No; that is uncommon as a failure in the AN fitting, fracturing of the sleeve.

XQ. 289. You also made some point yesterday, Mr. Amon, of the crash of DC-6's; am I correct?

A. Yes; I did.

XQ. 290. And they were due to tubing failures?

A. No; if I remember, I said specifically that that was not due to the tubing failure. I was referring to the hazard of gasoline.

XQ. 291. You spoke, I believe, of fittings in aircraft, triple fittings, for example, leaking on occasions. What [95] do you do when a fitting leaks a little bit?

A. When a fitting leaks it should be inspected

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to see if there has been any damage to the parts. If the fitting is relatively loose, that is, if it can be loosened with less torque than required to loosen one that has been properly assembled, there is a strong possibility that the leak is due to the fitting not having been properly tightened. On the other hand——

XQ. 292. May I interrupt?

A. ——it would be foolish just to tighten them and assume that that's the trouble. They should be inspected.

XQ. 293. But you can repair a leak by tightening the fitting a little bit more; that's true, isn't it?

A. That is true in many cases. If there is nothing damaged in the fitting or on the flare.

XQ. 294. With respect to failures of fittings, is it not true that the most common failure is a pinching off of the flare in flared fittings?

A. On aluminum alloy tubing, which is soft tubing, pinching off of the flares are a common failure, but are less common today than they were, say, five years ago in that changes have been made in the fittings used with the small sizes of aluminum tubing where this pinching off of the flare was at one time quite a problem and these changes have minimized that trouble. [96]

XQ. 295. The pinching off failure is, however, more prevalent in the three-piece fitting than it is in the two-piece fitting; isn't that true?

A. Yes. I answer that yes, speaking of small sized fittings with soft tubing.

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XQ. 296. Yesterday also, Mr. Amon, you spoke of the advantages of using seamless tubing, I believe it was, instead of iron pipe as conduits in aircraft. You made that comparison, did you not?

A. Yes.

XQ. 297. When was the last time you saw iron pipe used as a fuel line for aircraft?

A. I can't recall ever having seen a piece of iron pipe as a pipe used in an airplane, although I have seen numerous cases, and even recently, where pipe nipples have been used, which represent a very short length of iron pipe. Does that answer your question?

XQ. 298. That's satisfactory. Will you now, Mr. Amon, refer to your Exhibit No. 2 and tell me, does that represent the position of the parts at finger tight or after the parts have been drawn up to make a coupling?

A. The parts are at least finger tight. I'd say that they can be finger tight or that some tightening could have been put on them.

XQ. 299. It does, does it not, then, represent the [97] relationship of the parts after the recommended torque has been applied to the nut in order to tighten up the joint?

A. No; not the recommended torque or hardly even the minimum torque.

XQ. 300. With respect to the cutaway Exhibit No. 1, the physical exhibit, does that represent the parts finger tight or after the torque has been applied?

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A. From my inspection of the sample, although the parts are loose now and can be turned, I believe that there must have been some measurable torque, such as, for example, the minimum torque, applied to this fitting before this section was cut out.

XQ. 301. You mean that from your inspection, then, of that fitting, the recommended torque, the torque recommended in order to make a tight fitting, was not used?

A. Torque recommended to make it a tight fitting was not used?

XQ. 302. Yes.

A. No; I can't say that. I can't say what torque was used. It has been held in a vise. I can see the wrench marks here. The fact that the fitting is loose now doesn't have any relation to how tight it was before this section was cut out, because when you cut practically a whole half of that fitting away you destroy the strength [98] of the fitting and the parts become looser.

XQ. 303. In a case like that, then, Mr. Amon, you relieve the tension on the nose of the sleeve also, do you not, when you cut it away?

A. Yes. It's the same thing as breaking—we referred to it in that hoop tension. You break the hoop and you have no more tension.

XQ. 304. Then as we look at the cutaway sample in Exhibit 1, we do not see the parts in the relationship they have when the fitting is drawn up tight; that's true, isn't it? A. That's true.

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XQ. 305. Referring again to Exhibit 2, I believe you said that this represents the parts when they are finger tight? A. That's correct.

XQ. 306. And on the drawing Exhibit 2 there is illustrated the sleeve head angle, one degree or one and one-half degrees, whatever it is, and that sleeve head angle is plainly visible; isn't that true?

A. Yes.

XQ. 307. And you have said in cross-examination that the clearance between the butt end of the head and the inside diameter of the nut is plainly visible. What happens to the clearance at the head end of the sleeve when you draw the nut up with the recommended torque in order to make a tight joint? [99]

A. It diminishes to a degree dependent on the amount of torque applied with respect to the particular size fitting that you are talking about.

XQ. 308. It diminishes to nothing, doesn't it?

A. Not unless you get into the over-tightening range.

XQ. 309. The clearance at the butt end of the head also diminishes to nothing, doesn't it, when you tighten it up with the recommended torque?

A. Well, the recommended torque is a torque range. It has a minimum and a maximum.

XQ. 310. Let's say the average.

A. With any one clearance, for any one particular sample, into which you must take into account the manufacturing tolerances that are allowed on the sleeve head diameter and the inside

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diameter of the nut, you can't say that that clearance will diminish to nothing at any specific torque or you can't necessarily say that it will diminish to nothing within even the maximum torque for one given sample. In general, it does diminish as the torque goes up, but you can't say exactly at what torque it will reach nothing.

XQ. 311. The head or the free end of the sleeve spreads a great deal more than the butt end, doesn't it, when you tighten it up? [100]

A. It spreads more. However, neither one spreads very much, if that relates to what you mean by "a great deal."

XQ. 312. Well, it only has five one-thousandths clearance, so it can't spread any more, can it?

A. No; that is right.

XQ. 313. If you had a nut of minimum tolerance at the portion there that surrounds the head of the sleeve and if you had a sleeve of maximum tolerance, would you still have the five one-thousandths of an inch clearance which you say is represented on Plaintiff's Exhibit No. 2?

A. You will have either the five thousandths or some few thousandths less than that. I didn't check the actual clearances. It's only a matter of a few thousandths difference.

XQ. 314. Those few thousandths are enough to entirely close the clearance, aren't they?

A. Well, you can't entirely close the clearance to a matter of a half a thousandth or something like that or it wouldn't be possible to slip the nut over the sleeve.

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XQ. 315. You mean, not even if it were relieved after you separated the parts and the strain is relaxed?

A. I am speaking when I say "slip the nut over" of when you first make the assembly you put the nut on the tube and then you slip the sleeve over the end of the tube [101] and then you make a flare. When you go to draw up the fitting, the nut has to pass over the head of the sleeve in order to engage the threads on the body, and if no clearance is provided, they will not go together.

XQ. 316. Well, the clearance is there also, is it not, to let you back the nut off after you uncouple it so the sleeve will come away from the nut?

A. Yes. Well, assuming that there is enough clearance to get it on in the first place, you can get it off afterwards.

XQ. 317. Well, it's true, then, isn't it, Mr. Amon, that so long as you have a clearance in there such as you have said exists that the tension in the head will hold the sleeve against the flare to make the fitting tight?

A. As long as you have a clearance——

XQ. 318. As long as you have the clearance which you talked about, you will have a coupling when it is made up wherein the inherent resiliency of the head will press itself against the flare enough to make the fitting tight; that's true, isn't it?

A. You have used a couple of different terms there and I had to follow you very closely. That

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is true, speaking—we do have separate parts. You are still talking about this fitting, Exhibit 2 here, with a separate nut and a separate sleeve? [102]

XQ. 319. That is right.

A. And the clearance between them which permits the sleeve to expand?

XQ. 320. That is right.

A. Yes. The answer is yes to that question.

XQ. 321. Then it doesn't make any difference whether the tip end of the sleeve hits the flare first or whether the butt end hits the flare first?

A. In terms only of getting an expansion of the sleeve, as you stated, with a clearance allowed between it and the nut, you get that expansion of the sleeve whether it contacts at the very toe of the sleeve or at the base of the sleeve, that is true. You get expansion with contact at either point.

XQ. 322. Yesterday you talked about hoop tension, if I got the term correctly. Hoop like the hoop on a barrel? A. Yes.

XQ. 323. Is that the term?

A. We used that. That term was used.

XQ. 324. Will you explain that to me again? I didn't get quite clearly what you meant by hoop tension.

A. Well, your example of a hoop over a barrel is a good explanation for it. When you put a hoop on the standard wood barrel, that is, a metal hoop, the barrel has sides which curve out so that the barrel is bigger around the [103] middle than it is at the ends, and you slip the hoop over the

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smaller ends and drive it down over the expanding wood surface and you tend to spread the hoop.

XQ. 325. Well, on a barrel you have more than one hoop, don't you? A. Yes.

XQ. 326. One hoop down near the bulge and one up near the end?

A. Yes; and hoops of different sizes.

XQ. 327. Is there hoop tension on all the hoops?

A. There is hoop tension on them only if they are driven on in such a way that it takes pressure to force them over the bulged section of the barrel, or if some pressure is put on the inside of the barrel afterwards that tends to stretch the hoop. Some stretching of the hoop has to be accomplished to give you the hoop tension.

XQ. 328. On Exhibit 2, will you lay your pencil on the portion wherein there is hoop tension?

A. The hoop tension appears in the head of this sleeve. It appears in a greater degree at the end of the sleeve adjacent to where it contacts the flare, and will then appear in a lessening degree back to about the point where the sleeve shoulder engages the nut shoulder. Possibly a little further than that under some conditions of tightening at the high torque ranges or at the low torque [104] ranges it may not go any farther than that at all.

XQ. 329. Will you state again for the record what is accomplished by hoop tension? What does that do?

A. Referring again to the hoop on a barrel, and assuming that we have spread the hoop in order to

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get it to the place desired on the bulging side of this barrel, a stress has been set up in the middle of the hoop. It's in the same manner as a stress is set up in a rubber band if you stretch it. Now, the metal in the hoop isn't like the rubber in a rubber band in this sense; that it will not stretch very far before it would break, but if you only stretch it within the elastic limit of the material, it retains and holds that spring action tending to go back to its original size, and that's what we have here in this sleeve head when we speak of hoop tension. It has been enlarged by putting a pressure on in such a manner as to tend to stretch it. Although that stretching may increase the diameter of it only by a few thousandths, it tends to return to its original shape, and that gripping action is continuous.

XQ. 330. Well, didn't you tell us that it was the hoop tension that prevented the tube from pulling out of the coupling?

A. I said that that assisted in preventing the tube from pulling out of the coupling in that it has a [105] spring-like grip on the outside of the tube which it retains until the nut is loosened and the sleeve is permitted to move back to the point where it can contract again to its original size.

XQ. 331. Is that a peculiarity of the three-piece fitting manufactured by Parker according to AN standards? Does it exist in the Parker manufactured fittings only?

A. It exists in any fittings when installed if the

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fittings are made to the AN Standard detailed drawings.

XQ. 332. It exists also, does it not, in the sleeve of the 811 series? A. Yes; it does.

XQ. 333. To the same degree also; right?

A. Not necessarily to exactly the same degree, because of small differences in dimensions and angles between the two. That is, for any one fitting on any one size tubing at any one torque, the degree of hoop tension in the sleeves of the two parts are not necessarily identical.

XQ. 334. Well, there is hoop tension in the butt of an NAF Standard two-piece fitting, too, isn't there?

A. Yes. The correct engineering answer to that is yes. When you pull up the NAF nut, you again bring a tapered seat in contact with a matching tapered surface under pressure which tends to bulge the nut. However, the [106] nut is a heavy-sectioned part, and the degree of expansion of such a heavy-sectioned part is not comparable with the degree of expansion of a thin-sectioned part. It would be the same as a heavy, thick hoop on your barrel or a thin hoop. The heavy hoop, you just couldn't drive it onto the barrel to the point where you could drive the thin hoop on, because the barrel would be crushed.

XQ. 335. Well, then, so far as AN fittings are concerned, or the Parker equivalent, there isn't anything new about the idea of hoop tension? That was old stuff; isn't that true?

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A. I can't say how old it is.

XQ. 336. Well, at least it wasn't new with the AN fitting?

A. It had been in the 811 fitting before that. It has always been in the Parker three-piece fitting even before it was an 811 fitting, I would say, from an engineering standpoint.

XQ. 337. The Parker 811 fitting was a good fitting, wasn't it?

A. Yes; it was a good fitting.

XQ. 338. And there was a clearance, was there not, in the 811 fitting between the outside of the head and the inside of the nut?

A. Yes; there was a clearance there in the same sense that we talked about it here on [107] Exhibit 8.

XQ. 339. And in the 811 fitting, when you made it up tight, there was still a clearance between the outside of the head and the inside of the nut; is that right?

A. Yes; there was, except that the permissible torque range was more limited. The setup in pressures on the fluid systems in airplanes, 3,000 pounds on the hydraulic systems, and even in fuel systems you are up to peak pressures of six, seven hundred pounds now on large size lines on jet propelled planes, and it's necessary to get a higher performance from the fitting than it was before those pressures came into being, so where we may have had a minimum of trouble of locking the sleeve in the nut ten years ago, we might with that same fitting

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today have definitely more trouble because it's being used at higher pressure and the torques put on them are higher.

XQ. 340. Well, with respect to a three-piece coupling of the type generally similar to the AN Standard, it isn't your contention, is it, that Parker was the first to provide a clearance between the head of the sleeve and the inside of the nut?

A. No; I wouldn't contend that.

XQ. 341. Yesterday in your direct testimony you talked about lead tubing. Was it lead tubing that you mentioned or lead pipe?

A. I think it was referred to as lead pipe. [108]

XQ. 342. If the lead pipe had a corresponding outside diameter to the tube shown in Exhibit 2 and a corresponding inside diameter to the tube shown there, you could clamp lead pipe with the same kind of a fitting that you show on Exhibit 2, couldn't you? A. That's correct.

XQ. 343. And you could make a tight joint, couldn't you?

A. You could make a tight joint for moderate pressures. I wouldn't feel that you would make a tight joint for a high pressure line with a higher torque range. You would have to use a low torque with this type of joint on lead tubing.

XQ. 344. When you want a higher pressure range, you use a tubing with a little greater tensile strength in the wall; isn't that true?

A. A little greater tensile strength or heavier wall; is that what you mean?

(Deposition of Frederick E. Amon, Jr.)

XQ. 345. A little greater tensile strength in the material of the wall.

A. Yes; we do that, and also go to increased wall thicknesses.

XQ. 346. Lead is softer than copper, naturally?

A. Yes.

XQ. 347. And copper is softer than aluminum?

A. Yes. The type of aluminum tubing we refer to, [109]which is 52 SO.

XQ. 348. Especially annealed copper tubing is softer than aluminum? A. Yes.

XQ. 349. And aluminum is softer than steel?

A. Yes.

XQ. 350. So it is true, then, is it not, that you select the material of the tube in order to fit the particular requirements that you may have?

A. That is the standard design approach to putting in a piping or tubing system is first of all to get a tube or pipe that is suitable from a weight and size standpoint and strength standpoint and selection of proper fittings to go with that tubing.

XQ. 351. Yesterday you made considerable point of the fact that it is important in aircraft construction to have the fitting of such a character that you can use it in a small or limited space; that is right, isn't it?

A. Yes; that's correct, speaking particularly of what we refer to as close quarters.

XQ. 352. Well, it isn't true that the three-piece AN Standard fitting is the only one that you can use in close quarters, is it?

(Deposition of Frederick E. Amon, Jr.)

A. No; you certainly couldn't say that that is the only one that can be used in close [110] quarters.

XQ. 353. Will you name some of the other ones, please, if you know them?

A. One other fitting is the original brass fitting used with small size copper tubing wherein a portion of the fitting is soldered to the tube. That fitting is on Standard Air Force drawings under the number like 805 or in the high 700 series, and it was a three-piece construction but not a flared fitting and has the advantages of being used in close quarters.

XQ. 354. Two-piece flared fittings can be used in close quarters, too, can they not?

A. The two-piece flared fitting can be used in close quarters generally if there is not a bend or a clamp or something on the tube quite close to the nut. The biggest objection to the two-piece type fitting in close quarters is the nut does not slide back around the bends, whereas the nut on the three-piece fitting has greater clearance from the tubing and will slide around bends.

XQ. 355. Two-piece flared fittings have been known for at least 35 years, haven't they?

A. Two-piece flared fittings?

XQ. 356. Yes.

A. I'd say that they must have been known for at least 35 years.

XQ. 357. There isn't anything new, then, to the use of [111] tubing lines for economy of space?

(Deposition of Frederick E. Amon, Jr.)

A. Well, I will have to answer that question by saying that there is nothing new in the use of tubing lines with which you get economy of space, but the idea of using tubing lines for economy of space on high-pressure systems and large size lines is relatively new compared to the total use of tubing. For example, in steam power plants today they use tubing up to six and eight-inch sizes for economy of space and better flow character and greater strength, but it's all welded construction. It isn't the same type of problem we have with the use of the flared fitting.

XQ. 358. It doesn't have anything to do, then, with the introduction of the Parker three-piece fitting; that is right, isn't it?

A. The lines of six and eight-inch sizes, it doesn't. However, high-pressure lines do. As I pointed out, the Parker fitting was the earliest fitting used widely on hydraulic systems in the machine tool field, as a typical example, where we speak of hydraulic pressures of 500 pounds and up and line sizes running from $\frac{1}{8}$ of an inch to a maximum of about two inches.

XQ. 359. Among other things that you mentioned in your direct testimony was the ease of disassembly and reassembly of three-piece fittings, for example. The fitting [112] that Parker manufactures is more or less easy to disassemble and reassemble; that is correct, isn't it?

A. Yes. Speaking of close quarters work again; is that what you are referring to?

(Deposition of Frederick E. Amon, Jr.)

XQ. 360. Anywhere.

A. Yes. The answer is yes.

XQ. 361. Do the particular angles which Parker has selected for his three-piece fitting have anything to do with the ease of assembly and re-assembly?

A. Yes; they do. The angle on the flare and the length of the flare determines the distance that the tubing must be moved back away from the fitting before it can be slipped off to one side for removal. If you had a 90 degree angle on the end of the flare, which would mean that it was flared out square with the end of the tube or at an abrupt right-angle turn, you would have the ideal condition simply for ease of disassembly. It would be then necessary to loosen the nut only and get it back out of the way and the tube could be slipped off to the side with a very minimum of movement of the tube away from the fitting. On the other hand, if you went down to a ten-degree angle on the nose of the fitting, you would have the tip of the flare extending further back along the fitting, which would mean it would have to be moved away some additional distance before it could be slipped free of the tube; [113] slipped free to one side from the fitting, that is.

XQ. 362. Well, Parker didn't select the angles that you are talking about, did he?

A. Parker didn't specifically select the angles shown on this Exhibit 2 as a 33 degree angle on

(Deposition of Frederick E. Amon, Jr.)

the nose of the fitting for a series of fittings. Is that the answer you want?

XQ. 363. Yes. Somebody else selected that, didn't they?

A. Yes; that specific angle was selected when these fittings were designed, when the detailed drawings were made.

XQ. 364. And that fitting can be easily disassembled and re-assembled, can it not?

A. It's easy only compared to something else. It is still not the ideal. At the present time, particularly for use on large size lines—and I am speaking of lines up to three and four-inch sizes for some of these big airplanes—it would be desirable to have a fitting that would separate on a straight-across cleavage line, which this fitting doesn't do. It does require some movement away.

XQ. 365. You made some explanation here yesterday about the disadvantages of vapor lock in a gasoline line. Is it your contention that the use of Parker fittings is especially advantageous in eliminating vapor lock? [114]

A. The use of Parker fittings is advantageous in eliminating vapor lock, but only in this sense: This fitting has a flow passage through it that is as nearly as large as the inside diameter of the tubing as is practical to make it, and with fittings of this type, in which each joint is a union and the tubing sections can be taken apart easily, it is convenient in airplanes to use many tube bends. That is the

(Deposition of Frederick E. Amon, Jr.)

ideal situation in the sense of eliminating or preventing vapor lock, to use a tubing system with a minimum pressure drop. The tubing itself is the primary factor controlling the pressure drop; that is, the length of it, the size, the number of bends, compared to the flow rates. The fittings should add only the minimum additional pressure drop necessary.

XQ. 366. Parker fittings are not the only ones that fit that requirement, are they?

A. No; that is correct. Other fittings fit that requirement, if no more of them is required and if they have equivalent flow passages.

XQ. 367. You are familiar, are you not, with the flaring of tubing with a flaring tool?

A. Yes, sir.

XQ. 368. That is the way the flares on the tubing are made on the exhibits which you have produced here, is it not? [115]

A. Yes; these flares are made on a flaring tool.

XQ. 369. You know what a split flaring die is?

A. Yes.

XQ. 370. And what do you call the pin that goes into the die? The flaring pin?

A. Flaring pin.

XQ. 371. Suppose you had a flaring pin with a hole and at the end of the hole an angular spread, which determines the form of the flare of 33 degrees, and suppose you clamped a piece of tubing in that and flared it with a flaring pin, what would be the

(Deposition of Frederick E. Amon, Jr.)

angular degree of flare on the outside of the tubing after you got it out of the flaring die?

A. Now, the question is: What would be the angle on the outside of the flare when you would take it out of the flaring die?

XQ. 372. Would it be 33 degrees or would it be less?

A. It would be 33 degrees if it were soft tubing that didn't have any spring-back, and if the mating angle on the flaring pin were such that it spread the inside of the flare to a greater than a 33 degree angle.

XQ. 373. Suppose it is aluminum tubing?

A. Soft aluminum tubing?

XQ. 374. Like you use in airplanes?

A. It would be very close to 33 degrees.

XQ. 375. Suppose it was copper tubing? [116]

A. It would be very close to 33 degrees on soft copper tubing.

XQ. 376. Suppose it was hard copper tubing?

A. Then you would have spring-back.

XQ. 377. Suppose it were steel tubing?

A. Then you would have spring-back, too, depending on the alloy. The spring-back is a matter of possibly only a very small part of a degree or, in other words, a small amount.

XQ. 378. You mean, less than a degree?

A. Normally, less than a degree on the type of tubing that we are talking about here, the type of flaring tools that are used, but I can't say that it would not be in excess of a degree.

(Deposition of Frederick E. Amon, Jr.)

XQ. 379. Well, on the Parker tool which is designed to flare tubing for the AN specifications, what is the angular degree of divergence in the hole in the flaring die?

A. It's very nearly 33 degrees. I can't say positively that it's exactly 33 degrees. Some tolerance is allowed for manufacturing purposes.

XQ. 380. What is the degree on the end of the flaring pin? What is the number of degrees in the angle?

A. Well, that's approximately 33 degrees again. I can't say that it is exactly that, but it's in that neighborhood, within a degree or two at least. [117]

XQ. 381. Don't you mean 37 degrees?

A. Pardon me. You are correct. 37 degrees is correct.

XQ. 382. I want to refer you, Mr. Amon, to a Parker catalogue, and particularly Page 13, which I show you, at the bottom of the page. There it made reference to a triple hammer type flaring tool, and that tool is described as a piece which screws into the nut of the coupling and a hammer is driven into the tube in order to flare the tubing. When you flare tubing with a tool of that kind it is true, is it not, according to your explanation, that the outside diameter of the flare on the tubing after the flare is completed lays in substantially face-to-face contact with the inside of the flare of the sleeve?

Mr. Freeman: Will you identify the catalogue

(Deposition of Frederick E. Amon, Jr.)

by either catalogue number or year number so that it may be of record?

Mr. Beehler: Yes. Identified as "Parker Tube Couplings for Industrial Use. Price List No. 202-C."

Mr. Freeman: Is there any date on the catalogue?

The Witness: It was printed in June of 1946, 50,000, I believe.

Mr. Beehler: Do we have the last question [118] answered?

(Question read.)

A. Yes; it would be substantially in contact with the inside of the sleeve.

XQ. 383. That is, almost but not quite, due to some resiliency in the metal of the tube?

A. No; not with that type of flaring tool. It would depend on where the mechanics stopped. Now, the way you will tell whether you have a good flare or not with that type of tool is to hammer it to an amount that you learn only by experience and then remove the tool and slip the nut down so that you can inspect the relationship of the flare with the sleeve, and by inspection of that assembly there you can tell if the flare is long enough and if it has been spread to a great enough angle.

XQ. 384. That flaring tool is recommended by The Parker Appliance Company, is it not, as a good tool?

A. It's recommended by The Parker Appliance

(Deposition of Frederick E. Amon, Jr.)

Company only where better tools can't be used. It is not the desirable flaring tool to be used, but it is possible with a tool like that to make a flare on a tubing line sometimes even without taking it free from its connection at the other end, and its use is quite limited.

XQ. 385. Is the Parker flaring tool represented on Page 15 of the same catalogue, tool No. 281, a better tool than the [119] first one referred to?

A. Yes; it is better, although it can only be used with the Parker inverted flare two-piece coupling that preceded the three-piece coupling. It's better particularly in that there is an inspection window on the side of the tool that permits you to see the degree of flaring accomplished on the tube without removing the tool from the line.

XQ. 386. Well, I suppose you mean, then, that the Parker tool illustrated on Page 14 as tool No. 2343 is still a better flaring tool; is that right?

A. Yes; 2343 is a better tool, but that tool is used only on very small sizes, that is, for $\frac{1}{8}$ and $\frac{3}{16}$ inch O.D. tubing, and for those sizes of tubing it is good, I would say, to use the one in Figure 283.

XQ. 387. Well, what would you say, then, with reference to the Parker tool No. 410 illustrated on Page 14 of the same catalogue?

A. That tool, 410, is a better general tool for flaring than either of the previous tools, although it is not necessarily particularly better with respect to individual flares than Figure 2343.

(Deposition of Frederick E. Amon, Jr.)

XQ. 388. Well, it is true, is it not, that whether you have a good fitting, a good joint, made up with one of these AN fittings or a bad one depends to a degree on what [120] kind of a flaring tool you use?

A. I can't say that, because a good mechanic can give you a good flare with even a poor tool and maybe not even a better flare with what I say here is a better tool.

XQ. 389. Well, then, you say, do you not, that whether you have a good or a bad joint with one of these fittings depends on the skill of the mechanic; is that correct?

A. The skill and training of the mechanic. You must have a good flare or you cannot be assured of a good joint.

XQ. 390. And that is true no matter how you make the fitting, isn't that so?

A. That's desired no matter how you make the fitting. You have to have a good flare to start with.

XQ. 391. There is no such thing as a foolproof fitting; correct?

A. Unfortunately, there isn't.

(Discussion, off the record.)

(Recess.)

Mr. Beehler: I want to offer in evidence as Defendants' Exhibit A, Cleveland Deposition, the Parker Catalogue identified as "Price List No. 202-C, B16C-646," and particularly Pages 13, 14 and 15 thereof.

(Deposition of Frederick E. Amon, Jr.)

Mr. Van Sciver: No objection, except as [121] to materiality.

(Parker Catalogue marked, "Defendants' Exhibit A (Cleveland Deposition)".)

XQ. 392. Referring again, Mr. Amon, to Plaintiff's Exhibit 2, for example, and having particular reference to the portions which you have labelled "sleeve shoulder" and "nut shoulder," is it advisable that those two shoulders be in a plane transverse to the axis of the coupling? A. Yes.

XQ. 393. Is it less advantageous if the angle of the nut shoulder is tilted with respect to the angle of the sleeve shoulder in a direction such as that the surface of the nut shoulder hits on the outer portion of the sleeve shoulder?

A. Yes; any change of those angles that would tend to give you point contact would be less desirable than a surface contact, because it would increase the bearing pressure. However, if any point or line contact does occur, it's very desirable to have such contact at the largest diameter on the sleeve head rather than at the smallest.

XQ. 394. Just a little while ago we talked about making a flare on tubing with a flaring tool, wherein we used the sleeve and the nut and screw into the flaring tool part and then drive the pin home, and we said, as I recall, that when a flare is made that way with copper tubing or aluminum tubing that the metal of the flare will spring [122] back a little bit away from the flared inside portion of the sleeve; is that correct?

(Deposition of Frederick E. Amon, Jr.)

A. We spoke of spring-back, but with that type of flaring tool that you describe it isn't necessary that that outside diameter of the flare strike the sleeve inside surface when the flare is made. The important thing is that the pin on the flaring tool be forced into the inside of the flare to spread it to the proper angle and the proper length of flare.

XQ. 395. Well, if the pin is not driven too hard, then, if, let us say, it's a good flare and the metal of the flare does not spread out far enough to be actually driven against the inside surface of the sleeve, then there will be a little space, will there not, between the outside surface of the flare and the inside surface of the flared part of the sleeve?

A. That would be true, although that is not a good flare. I believe you were speaking of a good flare.

XQ. 396. In a good flare, what would it be?

A. In a good flare, by inspection, as I mentioned, you take the tool out and slip the nut down on the tube away from the sleeve and the flare portion. Then you look at the flare with respect to the end of the sleeve and check both the diameter of the flare with respect to the outside diameter of the sleeve head and you also check to [123] see that you have the flare spread far enough that your sleeve is in contact with the flare at the point where you can see it. That's the standard way.

XQ. 397. Well, what point would have the contact? It would be at the base of the flare, wouldn't it?

(Deposition of Frederick E. Amon, Jr.)

A. Well, speaking of very small angular differences on small fittings which are hard to see, it would be impossible to actually say whether the contact was at the base of the flare or at the tip, even if you hold it up and look at it.

XQ. 398. Well, how about a larger one where you could see?

A. It would be a little easier to see on the larger one, but there again the size, the length of the flare, does not increase as the diameter of the tube does, so you couldn't see things in the nature of a half a degree difference there either way.

XQ. 399. Well, you would end up with a slight clearance, would you not, between the outside surface of the flare, flared part of the tube, and the inside surface of the sleeve angle near the outer end?

A. Well, it would be unusual if you had exact contact at both the heel and the toe under no pressure, meaning that the two surfaces were exactly parallel, so you will in most cases have initial contact at the base of [124] the flare or at the outer end of the flare, but if the flare is acceptable, that difference will be very small. That's what I was trying to bring out.

XQ. 400. Well, fine. If we had the contact at the base of the flare, under the circumstances which you mentioned, and if we then draw up the nut against the sleeve head in order to couple up the joint, we do not get an initial contact near the nose of the sleeve; that is right, isn't it?

(Deposition of Frederick E. Amon, Jr.)

A. That is correct. Not necessarily. You do not necessarily get that initial contact at the toe; that is right.

XQ. 401. Then as we continue to draw it up, we bend the material of the sleeve inwardly toward the flare; isn't that right?

A. You bend the material of the sleeve inwardly?

XQ. 402. Of the sleeve head.

A. Inwardly?

XQ. 403. Inwardly toward the flare.

A. The flare?

XQ. 404. That's true, isn't it?

A. Not with soft tubing, which is what we are speaking of, isn't it? You don't get that.

XQ. 405. Well, copper tubing.

A. You don't get that action with copper tubing in that fitting. [125]

XQ. 406. What action do you get?

A. Any difference between the angles of the inside and outside of the flare with respect to the angles of the fitting nose and the inside of the sleeve will be brought into adjustment on copper tubing in the very early part of the tightening, the copper being soft, before there is sufficient stress imposed on the parts to create any measurable change in the dimensions or diameters of the sleeve.

XQ. 407. Well, in any event, you don't get a digging in of the nose of the sleeve into the flare, do you?

(Deposition of Frederick E. Amon, Jr.)

A. You don't get that in the initial portion of the tightening. That happens in the second portion of the tightening when you start to go to a higher torque, at which point the stress gets high enough that the sleeve head is deformed, too, starts to deform.

XQ. 408. Well, if the sleeve head rides up on the outside of the flare, then it spreads, doesn't it?

A. That is correct. The sleeve riding on the outside of the flare tends to spread; that is right.

XQ. 409. And it's that riding up of the sleeve on the flare which closes the contact between the adjacent surfaces; isn't that true?

A. Yes; it's the expansion of the sleeve that closes that contact. [126]

XQ. 410. And isn't the objective on all of these coupling joints to get a maximum amount of contact between flat engaging surfaces of the conical portions of the fitting?

A. Speaking of the fitting, you say conical——

XQ. 411. Conical portions of the flare of the sleeve and the body.

A. On soft tubing; that is right. That isn't so critical on the hard tubing, but on soft tubing it is important. Does that answer your question?

XQ. 412. Yes.

Mr. Freeman: I wonder if you will let the record show that you have been pointing out——

(Deposition of Frederick E. Amon, Jr.)

Mr. Beehler: I have been pointing out parts of Plaintiff's Exhibit 2.

Mr. Freeman: 2 as distinguished from Plaintiff's Exhibit 8.

Mr. Beehler: Thank you.

XQ. 413. Yesterday, Mr. Amon, you introduced as Plaintiff's Exhibit 4 a group of drawings, and I refer you to one of those drawings, namely, the one entitled "AND10059, Sheet 2," wherein there are depicted numerous bodies bearing various names, such as tees, unions, elbows, and the like, which show conical portions on the body adjacent to threads against which a tube is adapted to fit. That is correct, [127] isn't it?

A. That is correct.

XQ. 414. Is it not true, Mr. Amon, that those bodies can all be closed with either the nut captioned "AN818," which is the nut for the triple fitting, and the nut captioned "AN817," which is the nut for the two-piece fitting?

A. That is correct.

XQ. 415. The bodies are interchangeable with respect to those two different types of nuts?

A. That is correct.

XQ. 416. So that the bodies can be used either with the three-piece tubing or a two-piece tubing?

A. Fitting.

XQ. 417. Thank you. Three-piece fitting or a two-piece fitting?

A. That is correct.

(Deposition of Frederick E. Amon, Jr.)

Mr. Van Sciver: AN817 is not one of this group; is that correct?

The Witness: The center one at the top. Oh, not one of the detail sheets; no.

Mr. Van Sciver: It is the third one from the left at the top of the AND10059, Sheet 2.

XQ. 418. You spoke yesterday, Mr. Amon, of having worked with—well, I guess I don't recall the name of the Government agency, but the Board which was directed to the [128] standardization of these fittings. What was the name of that Board?

A. I referred to it as the Aeronautical Board.

XQ. 419. Were you a member of the Board or were you a commercial adviser, a manufacturer's adviser?

A. I was not a member of the Board. I contacted them as a sales representative of The Parker Appliance Company.

XQ. 420. You were not the only manufacturer's sales representative working with the Board; is that right?

A. No; I was not the only one.

XQ. 421. How many others were there, do you know?

A. Well, I obviously don't know how many there were but there must have been several.

XQ. 422. Could you name some of them? The manufacturer, if you will name it, it will be sufficient.

A. The Weatherhead Company.

XQ. 423. Aeroquip, did they have a man there?

A. Well, Aeroquip was in contact with them,

(Deposition of Frederick E. Amon, Jr.)

but probably on other phases or other specifications, at the same time. They were conducting or carrying on work on a number of specifications at one time, so there were really a number of people contacting them on various subjects.

XQ. 424. With respect to the fittings, did Mr. Masters happen to be in contact with them at that time?

A. I presume that he must have. He was in the industry [129] at that time. It would be unusual if he weren't.

XQ. 425. It's true, is it not, that the Aircraft Board continually circularized the manufacturers for recommendations with respect to fittings?

A. With respect to these fittings in connection with the standardization program on these fittings?

XQ. 426. Yes.

A. No; I believe the answer to that is no.

XQ. 427. They did not circularize the manufacturers?

A. That was done prior to the establishment of the procedure that's in effect today for coordination of proposed specifications with the industry under the A.I.A.A. I'd say that that was not an organized program at that time, and although the representatives on the Aeronautical Board did write letters several times to Parker on phases of this subject, and I presume they probably did to others, I don't believe we could say that there was a wide coordination at that time.

(Deposition of Frederick E. Amon, Jr.)

XQ. 428. You are familiar with the S.A.E. A-3 Committee which works on standardization; are you?

A. Yes; I was a member of it at one time.

XQ. 429. And did they not circularize the manufacturers regularly for recommendations?

A. I can't say no, obviously, but I don't think it was done to any great extent. It certainly was not done [130] to the extent it is done under the present A-3 Committee.

XQ. 430. In any event, they sought the advice of manufacturers in setting up their standards?

A. Yes. You speak of manufacturers of fittings?

XQ. 431. Yes.

A. Well, that's true, members of A-3 are in a large part from the fittings and hose manufacturing companies.

XQ. 432. And there were many others there besides The Parker Company, isn't that true?

A. You refer to the meetings that they——

XQ. 433. Many other manufacturers in connection with this committee other than Parker?

A. No; there were only a few companies on the committee. There are only a few companies represented on it today, but today they do what I feel to be a thorough job of coordinating their work with other manufacturers not represented on the committee.

XQ. 434. Yesterday you mentioned your Exhibit No. 7 as having been painted black. It's true, isn't

(Deposition of Frederick E. Amon, Jr.)

it, that the specifications call for steel fittings all to be painted black, not only Parker fittings?

A. That is correct. The same is true of the blue on the other exhibits. I said that it was manufactured by Parker because it has this Parker name or a symbol on it, [131] and being black identifies it as an AN fitting.

XQ. 435. Yesterday you talked about wire-locking fittings. Do you know of any flared type fittings which were wire-locked when used on aircraft construction at any time?

A. Flared type? No; I don't know of any flared type fitting that is in use, at least in this country. I can't speak for what may be done in aircraft in other countries.

XQ. 436. Well, confining yourself to this country's practices, then, wire-locking flared type fittings for aircraft construction is a rather extraordinary procedure, isn't it? A. Yes.

XQ. 437. And you spoke of the peculiarities of the Parker fitting as being such that they did not require wire-locking, did you not?

A. That is right.

XQ. 438. Then there isn't anything different in that respect about the Parker fitting than there is about other flared type aircraft fittings?

A. Well, I can only answer that question specifically by referring to other current aircraft fittings.

XQ. 439. I will be glad to confine my question to that.

(Deposition of Frederick E. Amon, Jr.)

A. There is only one other flared fitting which I know to be in common use in aircraft today, which is the AN817 [132] nut in connection with the bodies referred to here on this exhibit a moment ago.

XQ. 440. That's a two-piece fitting, is it not?

A. A two-piece fitting. And where those are used, they are not wire-locked, to my knowledge. I know of no other flared fittings that are being used.

XQ. 441. No flared fittings other than the AN Standard; is that it?

A. In any appreciable quantity. There are some of the NAF Series still on service airplanes, and there are some of the previous Air Force 811 Series, and even some of the Air Force Series 810, which was a two-piece fitting of an entirely different construction than the NAF Series but which preceded the AC811 fitting.

XQ. 442. Were the AC811 fittings ever wire-locked for aircraft use?

A. Not to my knowledge.

XQ. 443. There was another series of fittings for aircraft construction, was there not, called the BU Aero 5945. Are you familiar with that?

A. Yes; I remember that series.

XQ. 444. That was a three-piece or two-piece?

A. That was a two-piece, made in small sizes only. It was in use before I was familiar with these problems.

Mr. Beehler: No further questions. [133]

(Deposition of Frederick E. Amon, Jr.)

Redirect Examination

By Mr. Van Sciver:

Q. 445. Mr. Amon, referring to Exhibit 8, did Parker originate the differential angle shown in that drawing?

A. Yes; Parker originated the differential angle as referred to on this drawing. I pointed out before, there is a double angle on here and also a differential angle, which is a different thing. Parker did not originate the double angle but did on the differential angle.

Q. 446. There was mentioned a figure of five thousandths of an inch as being the nominal clearance between the base of the sleeve and the nut. Is that the diametric clearance?

A. Yes; that is the basic difference between the diameters of the two parts.

Q. 447. What is the actual distance between one side of the base of the nut and the sleeve?

A. With the sleeve in the center of the nut, the clearance on one side between one side of the sleeve and the adjacent nut would be half of that clearance, or two and one-half thousandths.

Mr. Van Sciver: That is all. [134]

Recross-Examination

By Mr. Beehler:

XQ. 448. Referring again to Plaintiff's Exhibit 8, that's a rather large blowup, is it not, of the actual fitting?

(Deposition of Frederick E. Amon, Jr.)

A. Yes; it must be. It's obviously one of the small size fittings and it's quite a blowup.

XQ. 449. So that five one-thousandths of an inch on the fitting would be illustrated on that drawing a great deal more than five one-thousandths; isn't that true? A. Yes.

XQ. 450. You just talked about the difference between a differential angle and a double angle. What is the difference? I don't understand that myself.

A. The double angle referred to represents two angles on the sleeve, one of 33 degrees and one of $18\frac{1}{2}$ degrees. You asked me if Parker originated the double angle on the sleeve and I said no. That refers to the two angles on the sleeve only. The differential angle is the difference between the angle on the sleeve and the angle on the flare. So the $18\frac{1}{2}$ degrees is the differential angle in that it is a different angle than the 33 degrees on the outside of the flare.

XQ. 451. Well, to further help me with respect to Plaintiff's Exhibit 8, what is the number of degrees of [135] the differential angle?

A. I speak of the differential angle as the $18\frac{1}{2}$ degree angle. The number of degrees of the differential is the difference between $18\frac{1}{2}$ and 33, $14\frac{1}{2}$ degrees actual differential.

XQ. 452. Well, then your answer to the question on redirect examination is, as I get it—you can correct me if I am wrong—that Parker was the originator of the use of an angle of $14\frac{1}{2}$ degrees?

(Deposition of Frederick E. Amon, Jr.)

A. No; I said that Parker was the originator of that kind of differential angle between an angle on the sleeve and an angle on the flare. I didn't mean to imply that they originated the specific $14\frac{1}{2}$ degrees of differential. The differential might be a greater or lesser number of degrees.

XQ. 453. I am afraid, Mr. Amon, I will have to leave myself in confusion. I can't follow you as to the difference between a double angle and a differential angle.

Mr. Freeman: Do you want us to concede that you are confused?

Mr. Beehler: I'd be glad to have it further explained. I think it might help the Court.

A. It's obvious that I chose an unfortunate name here when I said "double differential angle" and drew a [136] double arrow to two points. To clear this up further, if you will visualize this as talking about two things at the same time which, unfortunately, it is, you have a double angle, which is comprised of two different angles on one part——

Mr. Freeman: Why don't you tell us what that part is so that the record will be clear and so that the Court will understand it, and so that Mr. Beehler will understand?

A. (Continuing): Those two angles are the two angles on the inside seating portion of the sleeve head, which are marked on this drawing as "33 degrees" and " $18\frac{1}{2}$ degrees." Those two angles, since there are two of them, are referred to here as a double angle. That term was used by me be-

(Deposition of Frederick E. Amon, Jr.)

cause this type sleeve, as shown on Exhibit 8, is known in the industry as a double angle sleeve or as a wedge-type sleeve or as a modified sleeve.

XQ. 454. Was that originated by Parker before or after March 2, 1938?

A. Well, I said previously that Parker did not originate the double angle.

XQ. 455. Well, the differential angle, then.

A. Now, the differential angle refers to an angle between angles on two different parts, as contrasted to the other, which was the two angles on the same part. [137]

XQ. 456. Just maybe to cut it short, was that which you last mentioned originated by Parker? It was, you say? A. Yes.

XQ. 457. And was that originated by Parker before or after March 2, 1938?

A. I can't answer that question specifically with respect to that close a date here in this room today.

XQ. 458. Well, actually, that was originated in 1940, wasn't it?

A. Oh, it was much earlier than 1940, because these parts had been in use and in production with such a differential angle prior to 1940 on the AC811 fitting. Now, I don't know exactly when it was prior to 1940.

XQ. 459. All right, that's all right.

A. But even before 1939, but I can't say whether it was before or after a certain date in 1938.

Mr. Beehler: That is all. Thank you.

(Deposition of Frederick E. Amon, Jr.)

Mr. Freeman: Now, just off the record.

(Discussion, off the record.)

Mr. Freeman: Mr. Amon, will you waive your signature to the deposition, to which waiver, I understand, Mr. Beehler, counsel for the defendants, is agreeable?

The Witness: Yes.

Mr. Freeman: So that it's agreed that [138] the signature may be waived; correct, Mr. Beehler?

Mr. Beehler: That's agreeable.

Mr. Freeman: Thank you. That is all.

(Signature waived.) [139]

ROBERT HENRY DAVIES

of lawful age, called as a witness on behalf of the Plaintiff, as provided by the Rules of Civil Procedure for the District Courts of the United States, being first duly sworn, as hereinafter certified, deposed and said as follows:

Direct Examination

By Mr. Freeman:

Q. 1. Will you please state your name?

A. Robert Henry Davies.

Q. 2. And where do you live? A. Aurora.

Q. 3. By whom are you employed?

A. Parker Appliance Company.

Q. 4. How long have you been with The Parker Appliance Company?

A. Since October, 1939.

(Deposition of Robert Henry Davies.)

Q. 5. In what capacity did you enter the employ of The Parker Appliance Company?

A. As a sales engineer.

Q. 6. And what is your present position?

A. Chief Engineer.

Q. 7. And how long have you been Chief Engineer of The Parker Appliance Company?

A. Three years. [140]

Q. 8. And immediately preceding the time when you became Chief Engineer, what was your position with the plaintiff here?

A. Technical Assistant to the General Sales Manager.

Q. 9. Prior to your employment by the Parker Company, what were you doing?

A. Prior to my employment by the Parker Company, I was Chief Engineer of the O. W. Randolph Company in Toledo.

Q. 10. What was the nature of their business?

A. They made drying equipment.

Q. 11. And what schooling have you had? Are you a graduate of any college or school?

A. I am a graduate of the United States Naval Academy with a Bachelor of Science degree.

Q. 12. And when did you receive that degree?

A. In 1934.

Q. 13. Are you familiar with three-piece tube couplings? A. Yes.

Q. 14. Sometimes called fittings?

A. Yes.

Q. 15. And what have you had to do, if any-

(Deposition of Robert Henry Davies.)

thing, with the sale or engineering or use of three-piece couplings as manufactured and sold by The Parker Appliance Company?

A. Well, in all the time that I have been with The [141] Parker Appliance Company, a good percentage of my time has been spent doing just that, either selling, or as an application engineer, or in actual design and testing, or at least supervision of design and testing of three-piece fittings.

Q. 16. As an application engineer and as chief engineer of the company, have you had occasion to observe the actual use of three-piece fittings in actual installations? A. Yes; I have.

Q. 17. You were present during the taking of the testimony of Mr. Amon and you have heard mention of the AN fitting; is that correct?

A. Yes.

Q. 18. Do you have here any exemplification of the AN fitting or fittings as made by The Parker Appliance Company? A. You mean, this?

Q. 19. Any physical fitting or drawing.

A. Yes; here is a fitting here, there is a fitting here, and a couple of drawings over here.

Q. 20. In other words, when you said there was a fitting here, you were first referring to Amon Deposition Exhibit 1; correct?

A. That is right.

Q. 21. And then you referred later to Amon Deposition Exhibit 7; correct? [142]

A. Yes.

Q. 22. And when you referred to two drawings,

(Deposition of Robert Henry Davies.)

you were referring to Amon Deposition Exhibits 2 and 8? A. Yes; I was.

Q. 23. Did you have any contact with the Army and Navy concerning the development of the fittings exemplified by Deposition Exhibit 1?

A. Yes; I did. After the war production got going pretty much, I worked for Mr. Amon at that time, and he became more involved with the matter of production and allocation and scheduling, and so forth, than he was with the technical aspects of this, and I more or less took over the liaison with the Aero Board and the technical contacts with the Air Force and the Bureau of Aeronautics.

Q. 24. You have heard reference to the AC811 fitting; correct? A. Yes.

Q. 25. And did that precede the AN flared fitting of the kind here involved, Deposition Exhibit 1? A. Yes; it did.

Q. 26. And it is my understanding—and correct me if I am incorrect—that the AC811 fitting was a Parker type adopted as standard by the Government?

A. It was a Parker design adopted as a standard by the Air Force. [143]

Q. 27. And, again, the “AC” indicated “Air Corps” or “Air Force”?

A. Correct. It used to be the Air Corps. It is now the Air Force.

Q. 28. Will you tell me, as briefly as you can, what transpired or what took place with respect to

(Deposition of Robert Henry Davies.)

changing from the AC811 as standard and adopting what we now call the AN fitting?

A. Well, we, of course, at that time were in pretty much volume production on the AC811 fitting, because practically every airplane except a few Navy planes were using it, and I guess even some Navy planes were using it, although it was an Air Corps Standard. So we wanted the Aero Board and the Air Force also wanted the Aero Board to accept the AC811 fitting as it was without any changes as an AN Standard. It would have simplified the manufacture, and so forth, particularly at that particular time when manufacturing was a problem. However, the Navy, I believe, was not in favor of that at that time. I don't know why. But, as a result, the present AN fitting was arrived at in an attempt to take as many of the desirable features of the 811 fitting and incorporate them into the AN fitting.

Q. 29. And in the AC811 fitting, it provided on the outer surface of the sleeve an angle; is that correct? [144]

A. That is right.

Q. 30. And that was carried over into the AN fitting?

A. That is right.

Q. 31. We have used the term "Army and Navy" or "AN," and I am going to ask you whether or not The Parker Appliance Company in fact sells fittings to others besides the Army and Navy?

A. Yes; they do.

Q. 32. And will you give us a list of some of the customers to whom sales are made of AN fittings?

(Deposition of Robert Henry Davies.)

A. Well, all the air lines, and also on some of the private planes like the Beech Bonanza and the Republic Sea-Bee, and so forth, those had AN fittings on them.

Q. 33. Can you give me some of the applications or uses to which your fittings are put in connection with the airplane industry?

A. Yes; the fittings are used in the hydraulic system; they are used in the air conditioning and the heating and ventilating system; they are used in the pneumatic system for controlling the bomb bay doors, for instance, on the B-29; they are used in some of the older vacuum-operated instrument systems; they are used in the fuel system, the lubricating oil system, and anti-icing system, and there are probably a few others that I can't think of right now. [145]

Q. 34. Are there many fittings actually used in the aviation industry on planes?

A. Yes; there is getting to be a lot of them. It seems that there is getting to be more and more. The more complex and larger the planes get, the more fittings are used.

Q. 35. You mentioned the use in the hydraulic systems of airplanes, and by that do you mean where the landing gear is hydraulically controlled or hydraulically operated?

A. Where it's hydraulically operated.

Q. 36. In other words, there is some power mechanism for transmitting power in a remote position?

(Deposition of Robert Henry Davies.)

A. That is right. Not only landing gears but wing flaps and cowl flaps and a lot of other places.

Q. 37. Usually the control mechanism, however, is under the control of the pilot?

A. That is right.

Q. 38. And the work is being done at a remote place? A. That is right.

Q. 39. And it is necessary to have piping to carry the control of the work to the work to be done? A. That is right.

Q. 40. And is it that type of equipment wherein tubing is used for transmitting the power from the place where it is brought about to the place where the work is to be [146] done? A. Yes.

Q. 41. What type of tubing is usually used for conveying the hydraulic fluid or any of the operating structures for transmitting work from one place to work to be done at a remote place?

A. Well, the majority of the 1,500 pound systems use 52 U. S. Aluminum tubing. There was one, a B-26 installation, that used 24 S. T. and then most of the 3,000 pound systems used dead soft annealed steel tubing.

Q. 42. Now, you are giving me the characteristics of the tubing as to material? A. Yes.

Q. 43. Is that sometimes called seamless tubing?

A. Yes. If it's not welded, it's called seamless tubing.

Q. 44. Do you have any idea or can you give me an estimate of the number of fittings of the

(Deposition of Robert Henry Davies.)

Parker type that are used on some commercial planes or some Army planes or Navy planes?

A. I couldn't give you anything except a guess.

Q. 45. Well, I am asking for an estimate.

A. O. K. Oh, I'd say there is probably five or six thousand fittings on a large commercial transport or a medium bomber, fewer on a fighter plane, and probably more [147] on some of the bigger models.

Q. 46. And is it true that it is sometimes said that there are just miles of tubing used on an airplane?

A. I have heard that were 5,000 feet of tubing on a B-17. I don't know whether that's true or not.

Q. 47. And that's cut up into short lengths?

A. That is right.

Q. 48. And that brings about the use and necessity of a flared tube coupling at each end?

A. That is right.

Q. 49. You mentioned 1,500 pounds pressure per square inch. What is the usual pressure used for controlling mechanisms on planes wherein Parker AN fittings are employed?

A. Well, the majority of planes today in operation have 1,500-pound systems. The majority, if not all, of the planes that are being designed or that are being built experimentally have 3,000-pound systems.

Q. 50. And does the problem of making a fluid-tight or pressure-tight joint change when you go

(Deposition of Robert Henry Davies.)

from a 1,500-pound per square inch installation to a 3,000-pound per square inch installation?

A. Well, it just gets tougher to do.

Q. 51. When you say "tougher to do," is there any direct relationship between 1,500 and 3,000 to the requirement of [148] the fitting?

A. Well, of course, the fitting has to be stronger with the additional pressure and it has to handle a slightly heavier walled tubing, and, of course, in going from 1,500 to 3,000 you usually go from a soft aluminum tube to a soft steel tube, which is a change, of course, and if you go to a steel tubing, you usually go from an aluminum fitting to a steel fitting, too.

Q. 52. Does the problem increase as to making a fluid-tight joint by use of a Parker type fitting when you operate under higher pressures?

A. Yes; it does.

Q. 53. Is there any advantage in using seamless tubing as distinguished from types connected together by normal type joints? A. Yes.

Q. 54. Just what is that? Just briefly for the record.

A. It's a considerable weight saving, and, of course, a flared tube fitting will stand up considerably longer, has a greater fatigue stress against vibration than a tapered type installation would have. And there is also the question of the inside bore of the seamless tubing being much smoother than the inside of other types, so you get a much better friction factor between the fluid and there-

(Deposition of Robert Henry Davies.)

fore a less pressure drop which would, of course, result [149] in power saving and less heat loss.

Q. 55. Is that power saving an important factor in connection with aviation?

A. Yes; it's a very important factor in connection with aviation, because you might, if you had a high pressure drop, have to have, let's say, the next larger size pump in order to supply the power. The power that the pump puts out is relatively—you are not interested in that. What you are interested in is what power can you get at the end of the system or at the device that you want to move.

Q. 56. In other words, at the place where the work is to be done?

A. At the place where the work is to be done. So that any loss due to pressure drop, of course, means that you get that much less work available where the work is to be done.

Q. 57. And I take it that when you have tubing it's easy to make long sweeping bends?

A. That is right.

Q. 58. And that, too, helps?

A. That helps.

Q. 59. So that the use of tubing, together with the fitting, makes for good installation?

A. That is right. [150]

Q. 60. You have heard mentioned a term "vapor lock." Will you please explain what is meant by that, as briefly as you can?

A. Well, vapor lock is where the vapor pres-

(Deposition of Robert Henry Davies.)

sure of the fuel equals or is greater than the existing pressure in the fluid, and when that point occurs, of course, you can no longer pull fuel with a suction, because the more suction you put on the fuel, the more vapor pressure of the fuel tending to vaporize exceeds the pressure surrounding the fuel, or the pressure on the fuel itself, and the more fuel becomes vapor and there is no flow of liquid fuel.

Q. 61. I take it that lead pipe or lead tubing, if we can use that term, would not be suitable for any high-pressure installations?

A. No; it wouldn't.

Q. 62. And it wouldn't be suitable for any airplane installations because of weight in addition?

A. That is right.

Q. 63. And that's likewise true with respect to iron pipe?

A. That is right.

Q. 64. So it is desirable to use a type of tubing that permits easy bending so as to be compact and yet relatively light? [151]

A. Right.

Q. 65. And it is a fact that it is the use of that kind of tubing that has the advantages that I have just mentioned that brings about the necessity for a fitting?

A. Some means of coupling; yes.

Q. 66. And when you refer to "means of coupling," I take it that you also mean "means for uncoupling"?

A. That is right.

Q. 67. Is it true that in connection with the aviation industry there is continual assembly and

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disassembly of the component parts that go to make up the airplane? A. Yes; it is.

Q. 68. Is that because of the tremendous stresses and strains that are employed upon the installation in actual use?

A. To some extent, and also it's due to the fact that all aircraft equipment is designed very close to the line. In other words, pumps, for instance, instead of being designed to work forever, like they are in the machine tool industry where there is no weight problem involved, they are designed as light as they possibly can be, and therefore they have a limited service. They can only run so many hours before they have to be removed and overhauled. And, of course, the way you connect the tubing up to the pump is with a fitting, so you have got to have [152] fittings that can be readily disassembled.

Q. 69. You heard mention this morning about the AC811 fitting and that during the early portion of the war a good many of those fittings were sold and later on the AN took over; that is correct, is it not? A. That is correct.

Q. 70. At the present time, what is the recognized standard fitting for the aircraft industry; particularly aircraft manufactured for the government? A. AN fittings.

Q. 71. And has the AN fitting superseded in a great measure the AC811? A. It has; yes.

Q. 72. And I understood you to say that the feature of the angle on the outside surface of the

(Deposition of Robert Henry Davies.)

sleeve is carried over from the AC811 to the AN by Parker?

A. That is right. Well, it was put on the AN by the government at the recommendation of Parker.

Q. 73. In order to incorporate the feature that Parker had in its AC811 fitting?

A. That is correct.

Q. 74. I call your attention to Amon Deposition Exhibit 1, and will ask you to describe it as to its component parts, referring also to the drawing, Amon Exhibit 2, which is an illustration of the fitting itself. [153]

A. Well, it's a three-piece coupling consisting of a body, a nut, and a sleeve. How much detail do you want me to go on them?

Q. 75. The thing I am going to ask you then is: What are the features of the relationship of these three pieces that you have just mentioned? How do they operate? What do they do, one piece with respect to the other?

A. Well, the purpose of the nose, of course, is to provide a sealing surface for the flared tube to come up against. The purpose of the sleeve is to provide the means of clamping the flare of the flared tube against the nose of the fitting. And the purpose of the nut is to pull down and apply the force to the sleeve to make the clamping of the flare and thus make the joint.

Q. 76. I note upon Exhibit 2 the term "sleeve head angle," which you said was carried over from

(Deposition of Robert Henry Davies.)

the ACS11 to the AN at the suggestion of the Parker Company. A. That is right.

Q. 77. Now, proceed to tell me what is the purpose of that sleeve head angle. What does it do?

A. Well, the purpose of the sleeve head angle is to permit the expansion of the toe of the sleeve, if I may use the word "toe." I notice it isn't on here. But when the fitting is assembled so that—I don't know how much detail you want me to get into. [154]

Q. 78. Go right ahead and give us the whole story, if you can, with respect to the sleeve head angle.

A. Well, it's a small angle, so that the sleeve when it is expanded will stay within the elastic limit and not take a permanent deformation, and as long as you can keep the deformation of the toe of the sleeve within the elastic limit of the material, then when you relieve the pressure by backing off on the nut the sleeve will spring back again in the position shown in Amon Deposition Exhibit 2 and will permit the fitting to be disassembled.

Q. 79. Do I understand, then, that so long as the nut is moved to its fully tightened position that the toe of the sleeve has been slightly expanded so as to bring about a tension upon the flare of the tube; is that correct?

A. That is correct. If you tighten the fitting to any place within the recommended torque range of the fitting, the toe of the sleeve has been expanded within the elastic limit but sufficient to put the nose under hoop tension.

(Deposition of Robert Henry Davies.)

Q. 80. Now, you use the term "hoop tension." Does that mean a tension that is constantly being applied so long as the fitting is in a tightened position?

A. As long as the sleeve is deformed or the toe of the sleeve is expanded, then the sleeve is in hoop tension.

Q. 81. You use the word "deformed." You don't mean put out of commission? [155]

A. No. I should maybe have said "deflected," instead of "deformed."

Q. 82. Or "extended"?

A. Right. It's not a permanent deformation, as long as it's within the elastic limit of the sleeve.

Q. 83. If we use the term "deformation," that is a desired deformation? A. That is right.

Q. 84. And one intentionally brought about by the use of the sleeve head angle?

A. That is right.

Q. 85. Now, you mentioned something about the nut backing away and that the sleeve contracts so as to permit the nut to back away. Will you please explain just what you mean by that?

A. Well, as you loosen the nut, you reduce the load on the sleeve, and as you reduce the load on the sleeve, the sleeve, having been deflected within its elastic limit, returns to its original position, as shown in Amon Exhibit 2, which allows the nut to turn freely on the sleeve and to be backed off without any seizing or galling of the parts.

Q. 86. And does the sleeve head angle likewise

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permit the easy passage of the threads of the nut rearwardly without engaging or gouging the sleeve? [156]

A. Yes; it does. It has sort of the effect that any tapered piece would have, making it easy to slide off.

Q. 87. And is that likewise a feature of the Parker fitting? A. Yes; that is.

Q. 88. Is that an important feature?

A. Yes; it is.

Q. 89. You have heard the term "nut jamming" used. Can you explain that for us?

A. Well, as referred to here, I believe nut jamming means that the sleeve and the nut would become jammed together or there would be seizing of the two parts so that when you attempted to rotate the nut you would have to rotate the sleeve at the same time.

Q. 90. Well, what's wrong with that? Why not operate the nut and the sleeve together?

A. Well, then you don't have a three-piece fitting any more, you have a two-piece fitting.

Q. 91. Well, is there anything wrong with that? Does it bring about any result that is not desired?

A. Well, you lose all the advantages of the three-piece fitting. For instance, you can't then telescope the nut backward over the sleeve in order to disassemble the joint when there is a bend up close to the sleeve.

Q. 92. When you say "bend up close to the sleeve" you mean [157] a bend in the tube?

(Deposition of Robert Henry Davies.)

A. A bend in the tube up close to the sleeve.

Q. 93. Proceed.

A. Then also, of course, particularly with aluminum tubing, you have a tendency to gall the flare when the tube moves together, because as you rotate the nut you rotate the sleeve on the flare and that will gall the material and may cause the parts to actually seize so that you can't even remove the fitting. And then, of course, you also have the part that you don't have any self-centering features to the sleeve any more after they have hardened together and become one part.

Q. 94. Is there any disadvantage in having the sleeve rotate with respect to the tube?

A. Yes; it causes galling on the surface of the flare and could damage the flare to such an extent that if you wanted to re-install it again you would have to cut off the tube and flare it to get a smooth flare. Then, of course, it has a weakening effect on it. It causes a lot of tears, just like if you crease a piece of paper, something like that. You could crease the flare to the point where it would be weakened. If there was any vibration applied to it, you would have stress concentration at those points and you would have earlier fatigue failure than you would have if you hadn't caused the flare to be galled. [158]

Q. 95. So that the record is straight, what you are saying is that any scoring of the tube brought about by the sleeve would bring about a weakened condition at that particular point?

(Deposition of Robert Henry Davies.)

A. That is right.

Q. 96. And then vibration fatigue would set up faster? A. That is right.

Q. 97. I take it that it is desirable to have the sleeve stay put with respect to the tube?

A. That is right.

Q. 98. Will you point out wherein the nut engages the sleeve on Exhibit 2?

A. The nut engages the sleeve at this point here where it says the two contact, at the point, that is, the nut shoulder and the sleeve shoulder.

Q. 99. And is it desirable to have the surfaces of engagement at a maximum? A. Yes; it is.

Q. 100. And is it true that the toe of the sleeve moves outwardly as the nut is tightened?

A. Yes.

Q. 101. So that the angular position of the sleeve with respect to the inside surface of the nut in fact becomes more parallel as the sleeve expands?

A. That is right. [159]

Q. 102. Does that do anything at all or change the amount of engagement between the sleeve shoulder and the nut shoulder?

A. No; it might have some very small effect, but I should think that it wouldn't have any appreciable effect.

Q. 103. In other words, the advantage of having the maximum contact between the sleeve shoulder and the nut shoulder is not impaired by the expandability or the extension of the toe of the sleeve?

A. No.

(Deposition of Robert Henry Davies.)

Q. 104. You see the word "torque" and while we sometimes understand that, let's get into the record just what you mean by torque.

A. Torque is—well, the simplest way, I guess, to explain it, it's a twisting force. In actual numbers, it's the force applied multiplied by the length of the arm on which the force is applied. Like if I have a nut, for instance, and I apply ten pounds to a ten-inch wrench, I have one hundred inch pounds of torque.

Q. 105. Well, perhaps for my education, then, is it true that when we put what we call the maximum torque or even the average between minimum and maximum on the nut it is in effect driving the nut home for its holding position to bring about a complete coupling; correct?

A. That is correct. [160]

Q. 106. And when we talk about "minimum" that's the smallest amount of driving home of the nut that is permissible?

A. That's the smallest amount that on a series of tests have indicated that you can get a satisfactory joint.

Q. 107. So that when we say, "the average amount of torque," we are in effect saying that the nut is screwed onto the body for proper holding position?

A. That is right.

Q. 108. Is there any danger of possible over torquing; in other words, going beyond the maximum?

A. Yes; there is not only danger but it happens

(Deposition of Robert Henry Davies.)

frequently, particularly in the smaller sized fittings where it's very easy to put—the torques required to make the joint are relatively small, and it's very easy for a heavy-handed mechanic with a wrench to put too much torque on the fittings.

Q. 109. So that notwithstanding what may be requirements or specifications for the operator, the operator has some variable?

A. Yes; there is no way of controlling it unless you equip every mechanic with a torque wrench, which is obviously not practical.

Q. 110. If there is some slight amount of over-torquing, does the sleeve head angle play any part that permits such [161] over-torquing without necessarily ruining or spoiling the coupling?

A. Yes; the coupling can be over-torqued. I believe the over-tightening torque is considerably higher than, not just a little bit higher than, the maximum allowable torque, and the fitting has demonstrated in test its ability to be assembled and disassembled—I believe it's 15 times, or ten times maybe it is, under over-tightened torque conditions where the fitting is sometimes pulled down to such an extent that the flare is considerably damaged, but the fitting still holds pressure and the sleeve angle, the head angle on the sleeve, and the various other components of the fitting are such that when the nut is backed off, it turns freely on the sleeve and the nut can be pulled back off the fitting and there is no mechanical twist imparted in the tube.

Q. 111. And is that because of the greater clear-

(Deposition of Robert Henry Davies.)

ance or the angular clearance between the toe end of the sleeve and the wall of the nut?

A. In my opinion, it is.

Q. 112. Well, you know that to be a fact from actual experience? A. That is right.

Q. 113. And you have had actual experience in actually putting fittings on tubes? [162]

A. That is right.

Q. 114. In other words, you have actually done the mechanical end of it as well as the engineering end of it? A. That is right.

Q. 115. I now call your attention to Amon Exhibit 9 and the drawing Amon Exhibit 8, which illustrates a comparable fitting, and I will ask you to describe briefly wherein it differs from the AN fitting Amon Exhibit 1 and the drawing Amon Exhibit 2?

A. Well, it differs in that the sleeve has a double angle.

Q. 116. Now you are talking specifically about the sleeve? A. That's all.

Q. 117. Wherein is that double angle? On the inside or the outside of the sleeve? Will you point it out?

A. The double angle is indicated on Amon Exhibit 8 by the words "double differential angle," and it is on the inside of the sleeve. There are two different conical surfaces on the inside of the sleeve.

Q. 118. And the part that you have just pointed out on the sleeve and which you have referred to as

(Deposition of Robert Henry Davies.)

the double angle does, in fact, engage the outer surface of the flare of the tube?

A. Yes; it does.

Q. 119. Will you explain just what happens when you [163] start the engagement of the sleeve with the flared tube and then you begin to tighten up the nut? Tell us just what takes place, if you can, a word picture of what takes place physically.

A. Well, Amon Exhibit 8 indicates the fitting taken up, I should say, approximately finger tight. There has been no deflection of the sleeve and there has been no digging in to the flare of the nose of the sleeve or the toe of the sleeve. As you tighten it up to, let's say, the minimum torque, the first thing that happens is that some of the sleeve head angle is taken up as the toe of the sleeve expands. Also, probably if it's soft aluminum tubing, the nose or the toe of the sleeve, since it's made contact with the flare, the outside surface of the flare first begins to dig into that flare a little bit. Then as we go up to the maximum allowable torque, that digging-in increases and forces up a little blob of material probably under the toe of the sleeve, which helps the tensile pull-out strength of the fitting, incidentally, and the sleeve head angle by that time is practically parallel with the inside of the sleeve—or of the nut, rather. Then as you go into an over-tightened condition, the sleeve head angle becomes actually parallel and perhaps even a little the other way and is stopped from expanding any further by the inside surface of the nut so

(Deposition of Robert Henry Davies.)

that it can't [164] be deformed sufficiently or deflected sufficiently to exceed its elastic limit and thus take a permanent deformation. In the meantime, the 33 degree conical surface on the inside of the flare has probably bitten well through the flare. However, due to the $18\frac{1}{2}$ degree section, there is still a wedge of flare left for the sleeve to hold onto. And this is repeated several times, as it is in the repeated make-up tests, the 33 degree part of the sleeve keeps biting further and further through, but even if it should bite completely through the flare, there is still a wedge of tubing clamped between the nose of the tubing and the sleeve by the $18\frac{1}{2}$ degree part of the sleeve.

Q. 120. Then do I understand, using the term that you use, the $18\frac{1}{2}$ degree angle on the sleeve and the angle on the flare of the tube, that they substantially assume each other?

A. That is right; at the over-tightened condition.

Q. 121. In other words, at the fully-tightened condition, the space which is illustrated in Amon Exhibit 2 between the angle of the flare and the $18\frac{1}{2}$ degree angle of the sleeve, that differential disappears?

A. Substantially; yes. I wouldn't say definitely right at the maximum torque, but certainly not too far over that it would disappear. [165]

Q. 122. Well, am I correct in my understanding that whatever space is illustrated at finger-tight tightening of the nut that that space becomes less and less as the nut is driven home?

(Deposition of Robert Henry Davies.)

A. Oh, yes; definitely.

Q. 123. The term "differential angle" has been used. What do you intend to mean with respect to differential angle?

A. Well, by differential angle in a fitting of this type we are referring to a difference in angle between the inside of the sleeve and the outside of the flare with which it mates as the fitting is taken up.

Q. 124. Then am I correct that in a device as illustrated in Physical Exhibit 9 and Drawing Exhibit 8 that the sleeve engages the flare of the tube toward the toe first? A. Yes; at the toe.

Q. 125. Is that what we might call initial contact or toe contact?

A. That's the initial contact at the toe of the sleeve.

Q. 126. And as you drive the nut or rotate the nut to bring it home, that contact, instead of being over a small area as between the sleeve and the flare, becomes greater?

A. Yes; it becomes greater. As the toe of [166] the sleeve expands under a load that we described before, the area of contact of the inner surface of the sleeve and the outer surface of the flare becomes more. And, of course, also, as the flare is deformed slightly, it becomes more, too.

Q. 127. I think you mentioned something about repeated tests and the possible pinching off of the flare. Well, in the event that there is pinching off of the flare by a Parker type fitting as exemplified in Amon Exhibit 8, you still have proper holding

(Deposition of Robert Henry Davies.)

facilities, and do you still have a fluid tight coupling capable of withstanding the necessary pressures used in the aviation industry?

A. You still have a joint that's tight and that is strong enough to withstand the burst pressure of the tubing, which is probably some place in the neighborhood of twelve or fifteen thousand pounds per square inch, which is three or four times as high as any working pressures.

Q. 128. And even though you have pinching off or possible pinching off due to the differential angle and the initial toe contact, you still get a good joint? A. Yes; you do.

Q. 129. And what you are now telling me is from the experience that you yourself have observed over a period of years with The Parker Appliance Company? [167]

A. Yes; and also on a lot of tests that have been run on this by Parker as well as a lot of other people.

Q. 130. In addition to Parker's tests that you personally know about, you have had occasion to observe tests and test reports made by purchasers and users of the fittings of the kind exemplified by Amon Exhibit 9? A. Yes; I have.

Q. 131. Incidentally, Mr. Davies, the drawings that have heretofore been referred to as Amon Exhibits 2 and 8, do you know whether or not they are accurate drawings with respect to Parker type fittings of the kind exemplified by the physical models here, Exhibits 1 and 9,

(Deposition of Robert Henry Davies.)

A. Yes; they are. They are as exact as it's possible to make them on a drawing board. I believe they are five times scaled and they are, I believe, No. 4 fittings, if I am not mistaken. I couldn't be sure of that. But I know that they were drawn to scale as carefully as they could be, so that the relationships, although the actual measurements are five times bigger than they really are, at least the relationships and the clearances, and so forth, are in proportion to what they are in the actual fitting.

Q. 132. In other words, the various angles and the component parts that make up the entire drawing are all properly relative to each other? [168]

A. That is right.

Q. 133. And they do, in fact, illustrate the Parker type fitting of Exhibit 1 and Exhibit 9, respectively? A. Yes; they do.

Q. 134. Is there any bad result when the nut is fully torqued or driven home in having the tube twist with respect to the body of the coupling?

A. Yes; that's a very bad situation. In fact, that's one of the things that in the AN-F-47 specification, there is a specification on that point where you must torque up your fitting and you must have a torque indicating device on the tubing to indicate that the force tending to twist the tube must be held to a minimum, because there is a lot of stress in the tube. The tube is designed to stand the stress that it's normally subjected to by the pressure and

(Deposition of Robert Henry Davies.)

the surges, and so forth, of the system, but if you add a mechanical stress in addition to the hydraulic stress, such as you would by putting a twist in it, then you are liable to stress the tube beyond its strength and you are liable to have a tubing failure.

Q. 135. You mentioned the NAF fitting specification or requirement?

A. No; I said the AN-F-47 specification.

Q. 136. Oh, I am sorry. Then coming back to the NAF fitting, that was a two-piece fitting? [169]

A. That is right.

Q. 137. And in that type fitting, when the nut is driven home, the nut actually engages the flare?

A. That is right.

Q. 138. So that as the nut is rotated, there is this gouging or scoring action of the nut with respect to the flare?

A. There is; that is right.

Q. 139. And as the nut is fully tightened, there is, of course, a greater gripping and a tendency of twisting of the tube?

A. That is right.

Q. 140. In connection with your AN fitting or the Parker type fitting, the only point of contact between the nut and the sleeve is that region which you have called or Mr. Amon has called the sleeve shoulder and nut shoulder; correct?

A. That is correct.

Q. 141. And if there is any wiping or scoring action there, does it in any way impair the strength of the tube?

A. No; it does not.

(Deposition of Robert Henry Davies.)

Q. 142. Does it in any way impair or affect the operating characteristics of the coupling complete?

A. No; it doesn't, unless the scoring should be so bad that it should tend to make the two parts seize, but that's not likely, because, as a rule, they are two different [170] materials. The sleeve is usually Duronze No. 3 whereas the nut is aluminum alloy, and so therefore you don't get very much chance of seizure to take place between those two materials.

Q. 143. Aside from seizure, if there is any scoring or roughening of the region of contact between the sleeve and the nut, that doesn't affect proper operation?

A. No; that doesn't bother the fitting.

Q. 144. Is it true that the material of the sleeve may be hardened or relatively harder than the material of the nut?

A. Yes; the Duronze No. 3 material that I mentioned before has a tensile strength of about 95,000 pounds per square inch against probably 40,000 pounds per square inch for the nut, the aluminum alloy nut.

Q. 145. In the sleeve that we have here illustrated in either Exhibits 2 or 8 you permit it to expand. Now, does the material have any effect on that expansion?

A. Yes; it's desirable to use a material that is resilient; that is, it will not take a permanent set when it's expanded and it is also of high tensile strength so that it resists expansion so that it can

(Deposition of Robert Henry Davies.)

take a relatively high torque without expanding clear out to the point where it touches the inside of the nut, because when it does that, then you start to put those strains against the aluminum [171] alloy nut, which, of course, is not as strong as the sleeve.

Q. 146. And is it true that the sleeve is relatively thin with respect to the thickness of the nut?

A. Yes; it is. It's considerably thinner, as you can see from these exhibits.

Q. 147. And does the AN fitting give you hoop tension of a thin body against the flare as distinguished from a thick nut engaging the flare?

A. Yes; it does, because the toe of the fitting, of course, is quite thin and therefore, of course, the hoop tension is greater, because the deflection of the sleeve is greater at the nose where it's thin.

Q. 148. Do I understand that the hoop tension varies in degree from the nose rearwardly towards the region of contact?

A. In this case it does; yes.

Q. 149. And by "in this case" you are now referring to——

A. Amon Exhibit 8.

Q. 150. And is that likewise true in Exhibit 2?

A. Let's see, the deflection in Exhibit 2 would become less and less as you went farther back on the sleeve, but the actual tension would be about the same until you had gone as far back as the base of the flare and then it would reduce to nothing, be-

(Deposition of Robert Henry Davies.)

cause there would be no force tending to distort the sleeve at that point. [172]

Q. 151. Then is it true that at the toe you have the greatest amount of let's call it hoop tension?

A. That is right.

Q. 152. I think I used the term heretofore that the AN superseded the 811. That is a fact in connection with the aviation industry?

A. That is right.

Q. 153. Does that same thing hold true with respect to certain industrial applications?

A. Well, most industrial applications today are the Parker triple fitting, which is actually the AC811 fitting.

Q. 154. And has there been a tendency even in the industrial field to go from the AC811 to the AN type fitting?

A. Well, there has been a tendency, but there hasn't been very many used as yet, but there has been at least one standard that I know of that has been established based around the AN fitting.

Q. 155. So that the industrial field is now following that which the government followed some years ago?

A. That is right.

Q. 156. And the AN is becoming standard at least in certain applications?

A. That is right.

Q. 157. There was some question this morning with respect to the NAF fitting as being standard with the Navy at one [173] time.

A. The NAF fitting?

(Deposition of Robert Henry Davies.)

Q. 158. Yes.

A. Yes; the NAF310500.

Q. 159. What is standard now with the Navy?

A. The AN fitting is standard with the Navy.

Q. 160. When you say "AN," you are talking about the Parker type fitting?

A. I am talking about the Parker type fitting as illustrated by Amon Exhibit 1, Amon Exhibit 7, and Amon Exhibit 9.

Q. 161. Is there any weight or strength advantage in a flared fitting with an outside angle on the sleeve?

A. Well, there is at least a strength-weight advantage to a three-piece fitting over a two-piece fitting, and to have a three-piece fitting operate satisfactorily it is very desirable to have the sleeve head angle. Does that answer the question?

Q. 162. Well, the sleeve head angle, then, permits the easy disassembly of the nut?

A. That is right.

Q. 163. It prevents jamming or freezing of the nut with respect to the sleeve?

A. That is right.

Q. 164. It permits expansion at the nose end of the [174] sleeve? A. That is right.

Q. 165. And it likewise brings about what you have referred to as hoop tension of the sleeve with respect to the flare of the tube?

A. That is right.

Q. 166. The term "wire lock" has been used, and I am going to ask you whether during the war or

(Deposition of Robert Henry Davies.)

shortly thereafter you had any occasion to make any study of the German planes on behalf of the government?

A. Yes; I spent about three and a half months in Germany studying the developments in the German aircraft accessory industry, including fuel system valves, hydraulic system valves, fuel system fittings, and hydraulic system fittings.

Q. 167. And what did you find with respect to wire locking?

A. Well, the Germans wire lock—it was a requirement of the German aircraft that they wire lock all their fittings.

Q. 168. In other words, when you say “wire lock all their fittings,” you are talking about the fittings wherein tubes were coupled to work units?

A. That is right; they had to wire lock the fitting both places. They wire locked the fitting where it was screwed [175] into a box and they wire locked the nut where it was screwed onto the fitting.

Q. 169. Does the hoop tension prevent in a measure the backing away or the nut becoming loose during normal operation of the coupling?

A. Yes; it does.

Q. 170. Just explain that so that we can get it on the record, the complete explanation.

A. Well, it acts just similar to what a lock washer would act under an ordinary screw in that as long as the toe of the sleeve is under hoop tension it's trying to get back to its original position and therefore it's pressing down against the flare and,

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of course, as long as it presses down against the flare it must react against something else, so it reacts up against the sleeve shoulder and the nut shoulder here, which in turn pulls the nut up, as it's shown in both these Amon Exhibits, 2 and 8, so that all of the clearance in the threads is taken up and it's holding it up there and it's causing friction between the surfaces of the threads so that it will not back off easily under vibration. In fact, I don't know of any case I have ever heard of where a fitting has backed off under vibration.

Q. 171. And then that hoop tension is continued on during the life, that is, the operative life of the coupling? [176]

A. Yes; it is. As long as the sleeve is not stressed beyond its elastic limit, that hoop tension comes into play each time the fitting is assembled.

Q. 172. Well, it comes into play each time the fitting is assembled and it continues to play an important part until disassembled?

A. That is right.

Q. 173. So if the fitting is in use for a year, you have hoop tension for a year?

A. That is right.

Q. 174. There has been some mention about the angle of the tube flare itself being different on the inside surface than on the outside surface. Will you briefly explain what brings that about?

A. Well, that's brought about, of course, by the fact that there is the same number of cubic inches of material in the nose end of the flare after it's

(Deposition of Robert Henry Davies.)

been flared that there was before, so since it's taken a lot larger circumference than it did before, it must get narrower, and when it gets narrower that forces a difference in angle between the inside of the flare and the outside of the flare.

(Recess.)

Q. 175. Mr. Davies, have you any experience with the actual use of flaring tools for making flares? [177]

A. Yes; I have made flares with flaring tools.

Q. 176. And you are familiar with the flaring tools of the kind illustrated in the Parker catalogue, Defendants' Exhibit A? A. Yes.

Q. 177. There has been some reference to springing back of the flare after it was made due to the material from which it was made. Will you please explain just what is done to make a flare, how it functions, and what it does with respect to springing back or staying put? In other words, give us, as quickly as you can, an explanation of the making of a flare, its purpose, what it does, and so forth.

A. Well, of course, the purpose of the flare is to provide a part of the tube which the fitting can grip and which the fitting can use as a seal. The flare is made, as a rule, by having a female die in which the tube is swaged or expanded into by means of a male tool, and, of course, in so doing the tubing is stressed beyond the elastic limit and therefore it does not return to its original shape but keeps the shape as determined by the tool itself. There is possibly some springing back due to this method

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of flaring, but that spring-back would be very negligible, because any of the materials which can be flared at all, such as your block annealed steel tubing and [178] your dead soft copper and your 52SO aluminium alloy, have very little resiliency or very little tendency to spring back. Some other materials might, but those materials are unsuitable for flaring. Instead of flaring, of course, they would split. Furthermore, the spring-back would not be on an angular basis, but probably, if there were any, it would spring back, leaving the faces of the flare still parallel to the tool. In other words, it would spring back as much at the base of the flare as it would at the end. Is that satisfactory?

Mr. Freeman: Just off the record.

(Discussion, off the record.)

Q. 178. In Amon Deposition Exhibits 8 and 9 there is illustrated the Parker fitting with the differential angle, and I am going to ask you what effect, if any, the differential angle has with respect to increasing the resistance to vibration fatigue?

A. Well, the differential angle would have a tendency to increase the resistance to vibration failure or fatigue failure.

Q. 179. The differential angle of the sleeve with respect to the outer wall of the flare gives you what you have termed toe or initial contact; correct?

A. Toe contact; yes.

Q. 180. Is it true that toe contact gives you a seal [179] at lower wrench torque?

(Deposition of Robert Henry Davies.)

A. Yes. As a matter of fact, we have demonstrated that you can with that toe contact take a fitting up finger tight and hold 3,000 pounds pressure without leakage if all the parts are just right.

Q. 181. Why is that result brought about?

A. Well, that's brought about because where you have the toe contacting first, you have not quite a line contact but what approaches a line contact, so that if you have, let's say, just a very low total force available from tightening of the nut, say, just with your fingers, you have a high unit pressure available at the toe, because the area is so small. In other words, suppose you have ten pounds total force or suppose you have one pound total force, but you only have a thousandths of a square inch of area contact. Then you would have 1,000 pounds per square inch pressure at the point of contact, which would help you to seal.

Q. 182. Then the initial or toe contact permits sealing at lower torque pressure?

A. That is right.

Q. 183. And as you begin to lose the differential angle because of the tightening of the nut, you then have greater surface of contact; is that correct?

A. Yes; the more you draw the nut down and the more [180] that the toe of the sleeve expands, the more area of the differential angle is brought into contact with the outer surface of the flare.

Q. 184. So that the pressure then is applied to

(Deposition of Robert Henry Davies.)

a greater area? A. That is right.

Q. 185. And then you have less pounds per square inch?

A. Well, yes, but you have got more total pounds, so maybe your pounds per square inch is about the same.

Q. 186. In other words, you have obtained more pounds because of the increased torque?

A. That is right.

Q. 187. But you initially get a sealing off at a low torque? A. That is right.

Q. 188. And as you build up and cover more area, which would normally lessen the pounds pressure, you compensate for that by the increased torque?

A. That is right; and then because you are getting more area coming into contact, you start to get more resistance to the formation of the flare.

Q. 189. Does toe contact help in sealing imperfectly rounded flares by its tendency to seal on a line?

A. Yes; it does, but, chiefly, I should say, it does by the fact that because it gives you a high [181] unit stress at that point it tends to deform the flare and to bring it—if it's imperfect, to make it perfect, so to speak, or at least to make it conform to the toe of the sleeve.

Q. 190. At the point or at the line where there is contact between the sleeve and the flare?

A. That is right.

Q. 191. And it's easier to bring that into a—

(Deposition of Robert Henry Davies.)

let's call it a perfect condition—rather than trying to change an entire flare surface?

A. That is right.

Q. 192. So that toe contact is important in that respect? A. It is.

Q. 193. Wherein does the Parker type fitting exemplified in Amon Exhibit 1 differ from other triple type fittings? In other words, what features are there in the Parker fitting that you are now looking at, Amon Exhibit 1, over and above the ordinary or conventional three-piece tube coupling?

A. Well, I don't know what you refer to by "ordinary three-piece coupling," unless you refer to some old three-piece couplings that were made by Parker at one time. I am not familiar with any other types.

Q. 194. Well, does the conventional three-piece fitting have a sleeve with a sleeve head angle? [182]

A. Not to my knowledge.

Q. 195. And is it true that in the Parker type fitting exemplified by Amon Deposition Exhibit 9 that you get initial or toe contact?

A. Yes; it is.

Q. 196. And does that likewise differ from the so-called conventional three-piece tube coupling?

A. To my knowledge, it does; yes. I have never seen one like that.

Q. 197. And that brings about these beneficial results that you have just talked about?

A. That is right.

Q. 198. And likewise the sleeve head angle, that

(Deposition of Robert Henry Davies.)

is, on the outer wall of the sleeve, that, too, brings about these advantages that you have testified to with respect to the Parker type fitting?

A. Yes; I think that's right, because, as evidence of that, if I may just say a word here——

Q. 199. Go right ahead.

A. I realize that the idea of a three-piece fitting is not new, but until Parker made a three-piece fitting and incorporated some of these features that we have been talking about there was no significant use of three-piece fittings, and since that time they have not only been practically adopted as a standard in the Air Force but they also,—as [183] we pointed out before, have been taken up by machine tool and off the road equipment, and so forth, so that there must have been something in the changes which were made, which are these sleeve head angles and the initial toe contact, to make the difference between a fitting that was suitable and one that wasn't.

Q. 200. And those differences are important over the conventional three-piece coupling?

A. That is right.

Mr. Freeman: That is all.

Cross-Examination

By Mr. Beehler:

XQ. 201. Mr. Davies, you made a statement here in your direct examination, I believe, that in the setting up of the specifications for the AN

(Deposition of Robert Henry Davies.)

Standard fittings the desirable features of the AC811 were adopted; that is correct, is it?

A. In setting up the drawings, yes, I think that the specification just tells you how you are supposed to inspect, or something like that.

XQ. 202. But, in any event, the proportions, the angles, threads, dimensions, and that sort of thing?

A. No; not the specific angles, but the relationship [184] of parts. Not specific dimensions, because I don't think that specific dimensions mean anything, any more than they do if you have a small fitting and a large fitting. The dimensions themselves are different but the relationships are not different.

XQ. 203. Well, when the AN standards were set up and they undertook to take the desirable features of the AC811, at the same time they endeavored to omit the undesirable features: is that correct?

A. That is right.

XQ. 204. And it is true, is it not, that the sleeves of the AC811 are interchangeable with the sleeves of the AN Standard fitting?

A. Approximately so. Theoretically there is a possibility, I believe, in a few sizes of interference.

XQ. 205. Interchangeability, however, was recommended, was it not?

A. That is correct; it was in that. I might add there, just to be sure that we are straight, that wasn't exactly interchangeable. It was substitution. In other words, it was substitution of an AN for an 811 sleeve. That was always O. K. You couldn't do it the other way around.

(Deposition of Robert Henry Davies.)

XQ. 206. And does the AN fitting employ the same threads as employed in the AC811 fitting? [185]

A. In the Sizes 2, 3, 4 and 5, they employ the same threads, and also in the Sizes 28 and 32 they employ the same threads, and in all the other sizes the threads are different, different pitch.

XQ. 207. Were the threads adopted by the AN Standard Series the same as employed in the flared tube fitting series known as the NAF Series?

A. I believe that they were in all, but I think there was one case where they were not. I am not sure. I am not too familiar with the NAF. I believe there was a different thread diameter used in one size.

XQ. 208. In that event, then, so far as threads are concerned, they did not copy or adopt the AC811?

A. No; except in the sizes which I mentioned.

XQ. 209. With respect to the angles of the body of the AN fitting, did they copy the AC811 or did they copy the NAF body? A. The angles——

XQ. 210. On the body.

A. ——on the body? They used the NAF angle.

XQ. 211. With respect to the angle on the inside of the sleeve of the AN Standard, that angle is the same, is it not, as the inside angle of the NAF nut?

A. I believe it is, but I am not sure.

XQ. 212. Then that did not copy the AC811, am I correct? [186] A. No; that didn't.

XQ. 213. You have made some reference here to

(Deposition of Robert Henry Davies.)

the fact that Parker was not the originator of the three-piece fitting. Do I state you correctly?

A. I believe that is correct; yes.

XQ. 214. And with respect to the AN Standard there is a junction, a line of contact between the nut and the base of the head of the sleeve. Does that copy the AC811 or did that copy ordinary three-piece fittings?

A. Would you repeat that again? I missed the start of it.

Mr. Beehler: Would you read the question, please?

(Question read.)

A. You are referring to the parts marked on Amon Exhibit 2 as "sleeve shoulder" and "nut shoulder"?

XQ. 215. That is correct.

A. Well, that was taken from the 811 fitting.

XQ. 216. What else did the AN Standard copy from the AC811 sleeve?

A. The AN Standard copied from the AC811 sleeve the sleeve head angle and the differential angle between the internal surface of the sleeve and the external surface of the flare.

XQ. 217. Was there a double differential angle on the [187] AC811 sleeve?

A. There was a double angle on the AC811 sleeve and there was also a differential angle.

XQ. 218. Is the double angle on the AN the same as the double angle on the AC811?

A. In effect it is the same. Whether the actual

(Deposition of Robert Henry Davies.)

values of the angles are the same I don't know.

XQ. 219. And was Parker the originator of the double angle on the internal flare of the sleeve?

A. Parker was not the originator of the double angle.

XQ. 220. I take it, then, that Parker was not the originator of the double differential angle either; is that correct?

A. Parker was the originator of the differential angle, to the best of my knowledge.

XQ. 221. Well, what is the differential angle, will you tell me that?

A. The differential angle is the difference between the angle that is marked on Amon Exhibit 2 as "sleeve angle"—wait a minute. I had better use the other exhibit. I will take this one. (Continuing)—between the angle on the internal surface of the sleeve and the external surface of the flare.

XQ. 222. Am I right in interpreting your remarks to mean [188] that if the internal angle on the flare and the sleeve head angle are parallel, there is not a differential angle? Is that a correct interpretation of your definition?

A. By "sleeve head angle" you are referring to this angle out here?

XQ. 223. The inside angle on the sleeve?

A. Well, that is not the sleeve head angle. We have been referring to the sleeve head angle as this out here.

XQ. 224. Thank you for correcting me. "Sleeve angle" I intended to say.

(Deposition of Robert Henry Davies.)

A. If the two are parallel, then there is no differential angle; that is correct.

XQ. 225. All right. You said a short time ago that Parker originated the differential angle?

A. I believe they did.

XQ. 226. Did he originate a differential angle wherein the sleeve angle, as identified on Exhibit 2, was less than the external angle of the flare or wherein the sleeve angle is greater than the external angle of the flare?

A. Where the sleeve angle is less than the external angle of the flare.

XQ. 227. Is that the differential angle that the AN Standard copied from the AC811 Series? [189]

A. That is.

XQ. 228. Am I to understand, then, that on the AC811 Series the sleeve angle in all instances is less than the external angle on the flare of the tube?

A. No; not in all instances. Only in the smaller sizes.

XQ. 229. Will you identify the sizes, please?

A. 2, 3, 4, 5, and 6, I believe.

XQ. 230. And with respect to sizes other than 2, 3, 4, 5, and 6, is there a differential angle in the AC811 Series? A. I believe there is not.

XQ. 231. Then with respect to those sizes there was no copying, was there, in the AN Standard from the AC811?

A. Well, the AC811, in those sizes, the AN fitting has no differential angle in those larger sizes.

(Deposition of Robert Henry Davies.)

XQ. 232. Then in those larger sizes there is no hoop stress; is that correct?

A. No; that's not correct. In the larger sizes there is hoop stress.

XQ. 233. You mentioned the fact that initially tubing systems in aircraft were suitable for relatively low pressures as contrasted with the use of tubing systems later for high pressures, which you identified as pressures in the neighborhood of 3,000 pounds. Is there any difference in principle, so far as the three-piece AN coupling is concerned, between couplings which are suited to the use of [190] tubing for high pressures and those which are suited to the use of tubing for low pressures?

A. Well, there is a difference in that, for instance, a fitting that is satisfactory for low-pressure installations might not be satisfactory for high pressure. However, a high-pressure fitting probably would be suitable for low-pressure installations.

XQ. 234. Does that result from a difference in principle or a difference in the material which is used?

A. Well, it probably results from both. Take, for instance, the automotive industry, which uses a flared type fitting, which is perfectly satisfactory for automotive work but would not be satisfactory for aircraft or machine tool work, because the automotive companies themselves when they buy fittings for maintenance on their hydraulic equipment use a different type of fitting from what they use on the

(Deposition of Robert Henry Davies.)

fuel line installation in their automobile. Yet the material is brass and copper, the same.

XQ. 235. It works on a different principle; is that right?

A. It works on a different principle. It's a flared fitting, but it doesn't have some of the features that the flared fittings that we are talking about here have.

XQ. 236. You mentioned the desirability of being able [191] to reassemble the AN Standard fittings? A. That is right.

XQ. 237. The three-piece fittings?

A. That is right.

XQ. 238. When you reassemble a three-piece fitting, is it not true that the head of the sleeve expands further with the second assembly than with the first?

A. No; not if the same torque is used for the second assembly. It would not expand any further with the second than it did with the first.

XQ. 239. If you reassembled ten times, would there not be a greater expansion on the tenth time than on the first?

A. If the same torque were used, there would not be.

XQ. 240. In practice is there a greater expansion the tenth time than the first?

A. In practice, I have never actually measured the amount of expansion, so I would not be in a position to say.

XQ. 241. In practice, then, if you haven't

(Deposition of Robert Henry Davies.)

measured the expansion, you can't tell whether or not there was expansion; isn't that true?

A. No; I can tell if there was expansion, because—well, no, in practice you can't tell whether there is expansion, because you can't see inside of the fitting when it's assembled. [192]

XQ. 242. Well, your remarks, then, with respect to expansion are from a purely theoretical standpoint; is that true?

A. Yes. They are, however, pretty obvious.

XQ. 243. Obvious to you, you mean?

A. Well, they are obvious to any engineer.

XQ. 244. I want to refer you for a moment, Mr. Davies, to the Parker catalogue, Defendants' Exhibit A, and particularly Page 5, and I will read the paragraph I have reference to. And I might say that this discourse is with relation to the triple type tube couplings. "The sleeve is supported solidly in the nut as the nut is tightened down. This prevents the sleeve from bulging and insures good, solid clamping action on the flare. The slight reverse angle in the outside of the sleeve prevents it from deforming during tightening and jamming onto the nut." Can you tell me what that paragraph means when it says that the sleeve is supported solidly in the nut?

A. No; I can't. I think one of our advertising characters wrote that.

XQ. 245. Can you tell me what that paragraph means when it says "this prevents the sleeve from bulging"?

(Deposition of Robert Henry Davies.)

A. No; I don't know what they meant then either.

XQ. 246. Does it not mean, Mr. Davies, that when you screw down the nut of a Parker triple type tube coupling you [193] actually jam the head of the sleeve into the nut? That's true, isn't it?

A. Well, it's not true that you do that, but that's what he might have meant. I don't know. I didn't write that.

XQ. 247. Well, it's true in practice, isn't it?

A. That you jam the head of the sleeve into the nut?

XQ. 248. Yes; when you pull it down with an ordinary torque enough to tighten the coupling?

A. No; I wouldn't say that was true.

XQ. 249. Is it never true?

A. Oh, I say it is true, yes, it can happen, but you have to put a lot more than normal torque on it to make it happen.

XQ. 250. You made some remarks with respect to hoop stress and elastic limit. Is there not inherent in any metal object a resistance to compression which is not hoop stress?

A. A resistance to compression?

XQ. 251. Yes. A. Yes.

XQ. 252. And can you not compress a metal object between two other surfaces and then release the compression and have the metal regain some of its initial shape? [194] A. Yes.

XQ. 253. Does that not happen to the head of a sleeve in a three-piece coupling?

A. Yes; it definitely must happen, but the

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amount that it is compressed under the loads that we are talking about is so insignificant that it won't amount to anything.

XQ. 254. Will you again make reference, Mr. Davies, to Plaintiff's Exhibit 2, and I direct your attention again to the sleeve head angle previously described here as an angle one degree to one and a half degrees. Does that not provide a clearance at the free end of the head of the sleeve greater than the clearance at the butt end of the head of the sleeve.

A. Yes; the clearance at the toe of the sleeve is greater than the clearance at the butt end of the sleeve.

XQ. 255. Very well.

A. I say "toe" because I have been using the word "toe" before.

XQ. 256. Thank you. Let's use the name "toe" then. Suppose, Mr. Davies, instead of having a sleeve head angle of one and one-half degrees on the exterior of the head we extend the outside surface of the head of the sleeve back on a line parallel to the inside surface of the nut, beginning at the point where the angular pitch provides at the toe the greater clearance. Do you [195] follow me?

A. Yes; I understand. In other words, this line that's known as the sleeve head angle would be zero?

XQ. 257. Yes; that is correct. And spaced at a distance from the inside surface of the nut with the same amount of clearance as on the toe of the head of the sleeve,

A. That is right.

XQ. 258. Under a circumstance like that, Mr.

(Deposition of Robert Henry Davies.)

Davies, and providing the recommended torque which you refer to as the one used when the coupling is made up, after making up a coupling of that design, would you not have the hoop stress previously referred to? A. Yes; you would.

XQ. 259. And would you not have the same position on the toe of the sleeve with respect to expansion as you do in the coupling as illustrated in Exhibit 2?

A. The toe of the sleeve would be in the same position as it would be, approximately; yes.

XQ. 260. As it would be if you had a sleeve head angle as previously described?

A. That is right.

XQ. 261. And then, therefore, would not a coupling without the 1½-inch sleeve head angle be just as good *as good* as one with the exterior surface of the head cylindrical?

A. Would you repeat that question? [196]

Mr. Beehler: Read the question, please.

(Question read.)

Mr. Beehler: I will have to re-phrase it.

XQ. 262. Would not, therefore, a coupling without the sleeve head angle, namely, with the head of the sleeve cylindrical, be just as good as the coupling illustrated in Plaintiff's Exhibit 2?

A. No; I don't think it would be quite as good. It would certainly be better than one that didn't have any clearance, but you won't have quite as much contact back on the sleeve shoulder and the nut shoulder as you have with the taper.

(Deposition of Robert Henry Davies.)

XQ. 263. That contact would be diminished by about two-thousandths of an inch on each side; is that right?

A. I don't know the exact figures, but I would say that maybe that could be right.

XQ. 264. The drawing shows the corner of the butt end of the head of the sleeve broken. The corner is broken by more than two-thousandths of an inch, isn't it?

A. Yes; I would say it was.

XQ. 265. So that if we reduced the diameter by two-thousandths of an inch, we would still have the same amount of shoulder to shoulder to contact, would we not?

A. No; because then you have to break the corner the same amount and you just move the corner break in that [197] much farther.

XQ. 266. Well, if we broke the corner a less amount, then we still have the same amount of shoulder to shoulder contact?

A. Right; but then you wouldn't have as good a fitting, because you wouldn't have your corner broken as much and you would have more stress concentration at the corner.

XQ. 267. Well, then, is it not true that the sole advantage of the AN fitting there pictured in sizes over 6 exist in providing a sleeve head angle of $11\frac{1}{2}$ degrees instead of providing a corresponding amount in clearance on a cylindrical sleeve head? That's true, isn't it?

A. That's the only difference between the—well, let me have that question again, please.

(Deposition of Robert Henry Davies.)

(Question read.)

A. Well, the advantage over what?

XQ. 268. Well, over the AC811 sleeve, for example?

A. No; because the AC811 sleeve had that same sleeve head angle, so the AN has no advantage over the 811 for that reason.

XQ. 269. With respect to the AN sleeve, the sole advantage that the AN sleeve has over an ordinary three-piece coupling is the presence of a $1\frac{1}{2}$ -degree sleeve head angle instead of a corresponding amount of clearance [198] gained by a cylindrical exterior?

A. Well, that is the only advantage, if you want to call it that, but I don't know of any three-piece fitting that does not have the sleeve head angle. I mean, you are talking about a hypothetical three-piece fitting that would not have the sleeve head angle.

XQ. 270. You also mentioned torque, Mr. Davies, and I refer particularly to the torque effect on the tube, and you said, if I remember correctly, that it was desirable not to have too much torque or twist on the tube when the coupling was made up; is that correct? A. That is correct.

XQ. 271. In comparing the torque effect on the tube of a tube coupled with a three-piece AN fitting and the torque on a tube with a two-piece flared fitting, on which is the torque greater?

A. The torque on the tube is greater on the two-

(Deposition of Robert Henry Davies.)

piece fitting than it would be on the three-piece fitting.

XQ. 272. You are absolutely certain of that statement? A. Yes; I am.

XQ. 273. Just a minute ago, Mr. Davies, if I may backtrack a little bit, we spoke of breaking the corner on the butt end of the head of the sleeve, and you said, I believe, that that was undesirable?

A. Breaking the corner—— [199]

XQ. 274. On the butt end of the head of the sleeve.

A. I didn't say that was undesirable. I said it was desirable.

XQ. 275. It was desirable to break the corner?

A. That is right.

XQ. 276. Fine. Why is it desirable to break the corner?

A. Well, it's desirable to break all sharp corners, because at sharp corners is where you get stress concentrations that cause failure. I mean, that's a standard practice in any machining operation is to break sharp corners.

XQ. 277. Is there stress on an extra corner that needs to be broken by breaking the corner?

A. No; there isn't, but there would be a stress concentration on the nut at that mating internal corner, and that has to be filleted, and if that's filleted in order to avoid just a point contact at that point, it's necessary to break the corner on the sleeve.

XQ. 278. Thank you. Now, referring once again,

(Deposition of Robert Henry Davies.)

Mr. Davies, to Plaintiff's Exhibit 8, you spoke of toe contact. A. Right.

XQ. 279. And you meant, I believe, by toe contact the contact of that portion of the inside of the sleeve identified as having the 33-degree flare?

A. Correct. [200]

XQ. 280. This morning, I believe you heard Mr. Amon testify to the effect that the 33-degree portion was about half as much as the 18½-degree portion; is that correct?

A. I believe he did say that, although I am not sure.

XQ. 281. Well, is that correct from your own experience?

A. Well, I will take a look at it. Yes; that's about right.

XQ. 282. Well, with the toe, then, about one-half of the portion of greater angularity, the toe portion or the toe contact is then a surface to surface contact, isn't it? A. It is.

XQ. 283. It is not a line contact?

A. No; it is not.

XQ. 284. And if a line contact does develop as the nut is screwed up, is it not true that the line contact, if such there be, lies at the angle between the 33-degree part and the 18½-degree part?

A. Well, no line contact would ever develop with the sleeve as it's shown on Exhibit 8. No actual line contact, in other words.

XQ. 285. You mentioned a digging in of the sleeve into the flare? A. That is right.

(Deposition of Robert Henry Davies.)

XQ. 286. The digging-in would be at a maximum at the junction of those two angles, would it not? [201]

A. No; the digging-in would be on the 33-degree surface. That's where your digging-in would be.

XQ. 287. You mean, it would be a surface digging?

A. It would be a surface digging. In other words, the 33-degree surface is only about 10 to 15-thousandths long. Whereas 10 to 15-thousandths is a measurable distance, it is still a relatively small distance, and for that reason there would be unit pressures on that area, and therefore that area would be the part that would dig in. Any line contact, so-called, is actually an area contact, if you want to get down to small enough values.

XQ. 288. Well, just to correlate our terms, if the 33-degree portion is a small area of contact and it's 15-thousandths, then the 18½-degree part, which is only twice as long, is that small or great?

A. No; that's twice as much.

XQ. 289. Still small, isn't it?

A. Yes; the fitting is still small; sure.

XQ. 290. Right back where we were talking with respect to the 33-degree portion on the sleeve, as the coupling of Exhibit 8 is drawn up, the toe, as you term it, of the sleeve starts to expand, does it not? A. That is correct.

XQ. 291. And as it starts to expand, it tends to pull away from the flare, does it not, at the extreme end? [202]

A. Let's see what you mean by "pull away from

(Deposition of Robert Henry Davies.)

the flare." It's being pushed——

XQ. 292. It's being driven away?

A. Driven into the flare rather than driven away from it.

XQ. 293. It's being pushed to a diameter greater than it had to start with?

A. That is right; but, of course, as it's being pushed to that diameter, it's also being pushed downward and digging into the flare. It's digging into the flare, not going away from it.

XQ. 294. You mean, it digs in as much as it spreads; is that right? A. No.

XQ. 295. So that the angularity of 33 degrees does not change?

A. No; the angularity of 33 degrees does change.

XQ. 296. Gets greater?

A. Gets greater, because the sleeve pivots about a point.

XQ. 297. You were talking also, Mr. Davies, about making up a flare with a flaring tool?

A. Yes.

XQ. 298. And you said, if I remember correctly, that with respect to spring-back there would be as much spring-back [203] at the outer extremity of the flare as there would be at the base of the flare; is that right?

A. I said first of all there would be practically no spring-back to any of the commonly used materials that can be flared, and that if there were any spring-back that it would be practically as much at the base of the flare as it would be at the toe.

XQ. 299. And at the base of the flare there is

(Deposition of Robert Henry Davies.)

really almost no expansion due to the tool; that is right, isn't it?

A. Well, there is no expansion right at the base of the flare, that is right, but I should have said a little short distance up from the base of the flare.

XQ. 300. Isn't it true that the more expansion you get the more spring-back you are likely to get?

A. No; not—that's true as long as you stay within the elastic limit of the material, but once you have achieved the elastic limit of the material, then you get less spring-back than you would if you stayed within it. For instance, you could take a piece of steel and bend it, and as long as you stayed within the elastic limit, it would resume its former shape and you get considerable spring-back, but if you exceeded the elastic limit by bending the steel around your knee to a 90-degree angle, it wouldn't go back at all and you would get practically [204] no spring-back.

XQ. 301. There is something in the middle, though, where you exceed the elastic limit but only a little bit?

A. That is right; but once you exceed the elastic limit it will not return to its original position.

XQ. 302. Well, in commercial practice of making flares, do you always exceed the elastic limit of the material flared?

A. Certainly. Otherwise the flare would spring back and you wouldn't have any flare there. It would be just the same as it was before.

(Deposition of Robert Henry Davies.)

XQ. 303. Well, if you just partially exceeded it, you would get a partial spring-back, wouldn't you?

A. No; you can't partially exceed something. You either exceed it or you don't.

(Discussion, off the record.)

A. (Continuing): Well, my point was that you either exceed the elastic limit or you don't exceed it. If you exceed it, it does not return; if you don't exceed it, it does return.

Mr. Beehler: No further cross-examination.

Mr. Freeman: Mr. Davies, you are willing to waive your signature to the deposition, and I understand that's agreeable with Mr. Beehler? [205]

Mr. Beehler: That is correct.

Mr. Freeman: And it's agreeable to me, so it's all agreed.

Now, this concludes the taking of depositions at Cleveland, and I understand you have your notice and we will see you in New York City on Tuesday morning next?

Mr. Beehler: That's fine.

(Signature waived.) [206]

Certificate

The State of Ohio,
County of Cuyahoga—ss.

I, William E. Ferris, a Notary Public within and for the County and State aforesaid, duly commissioned and qualified, authorized to administer oaths and to take and certify depositions, do hereby

(Deposition of Robert Henry Davies.)

certify that the above-named Frederick E. Amon, Jr., and Robert Henry Davies, were by me, before the giving of their depositions, first duly sworn to testify the truth, the whole truth, and nothing but the truth; that the depositions as above set forth were reduced to writing by me by means of Stenotypy, and were later transcribed into typewriting under my personal direction, and are a true record of the testimony given by the witnesses; that the reading and signing of the depositions by the witnesses were expressly waived by stipulation of the witness and counsel; that said depositions were taken on Thursday, the 5th day of May, A.D. 1949, in the City of Cleveland, County of Cuyahoga, and State of Ohio, pursuant to the annexed notice and stipulations of counsel herein contained; and that I am not a relative or employee or attorney or counsel of any of the parties, or a relative or employee of such attorney or counsel, or financially interested in this action.

In Witness Whereof, I have hereunto set my hand and seal of office, at Cleveland, Ohio, this 18th day of May, A.D. 1949.

/s/ WM. E. FERRIS,
Notary Public.

[Endorsed]: Filed June 22, 1950.

[Title of District Court and Cause.]

NOTICE OF INTENTION TO TAKE
DEPOSITIONS

To: Glenn A. Lane, 1151 Los Angeles Stock Exchange Building, Los Angeles 14, California, Huebner, Beehler, Worrel, Herzig & Caldwell, 610 South Broadway, Los Angeles 14, California.

Sirs:

Please take notice that on Tuesday, April 26, 1949, at 10:30 a.m., the Plaintiff in the above-entitled cause will proceed to take the depositions of:

Roland Bergh, Farmingdale, Long Island, New York,

William D. Clark, c/o Republic Aviation Corporation, Farmingdale, Long Island, New York,

W. Howard Ehmann, c/o Republic Aviation Corporation, Farmingdale, Long Island, New York,

Edward M. Greer, c/o Greer Hydraulics, Inc., 454-18th Street, Brooklyn 15, New York, and perhaps others of whom due notice will be given, in accordance with the Federal Rules of Civil Procedure, before an officer authorized by law to take depositions, at the offices of Cravath, Swaine & Moore, 15 Broad Street, New York 5, New York, when you may attend and cross-examine said witnesses if you see fit so to do.

The taking of the aforementioned depositions will be subject to adjournment from day to day until completed.

Dated this 6th day of April, 1949.

BAIR & FREEMAN,

By /s/ WILL FREEMAN,

By /s/ W. M. VAN SCIVER,

Attorneys for Plaintiff.

[Title of District Court and Cause.]

DEPOSITIONS OF W. HOWARD EHMANN,
WILLIAM D. CLARK, EDWARD M.
GREER, AND ROLAND BERGH

taken on behalf of the plaintiff in the above-entitled action pursuant to notices dated April 6, 1949, and subsequent stipulation of adjournment to the above time and place.

Appearances :

For the Plaintiff:

MESSRS. BAIR & FREEMAN,
No. 135 South La Salle Street,
Chicago 3, Illinois, by

WILL FREEMAN, ESQ., and
W. M. VAN SCIVER, ESQ.,
Of Counsel.

For the Defendants:

MESSRS. HUEBNER, BEEHLER,
WORREL, HERZIG & CALDWELL,
No. 610 South Broadway,
Los Angeles 14, California, by

VERNON D. BEEHLER, ESQ.,
Of Counsel.

STIPULATION

It Is Hereby Stipulated and Agreed, by and between the attorneys for the respective parties hereto that the stipulations heretofore entered into during the taking of the depositions of Frederick Amon,

Jr., and R. H. Davies at Cleveland, Ohio, in the above-entitled causes may apply to the depositions taken in New York City.

PROCEEDINGS

W. HOWARD EHMANN

having been first duly sworn by Irwin T. Shaw, the notary public herein, testified as follows:

Direct Examination

By Mr. Van Sciver:

Q. 1. State your full name and residence. [2*]

A. William Howard Ehmann, 250 Harrison Avenue, Mineola, New York.

Q. 2. By whom are you employed, Mr. Ehmann?

A. Republic Aviation Corporation.

Q. 3. Where are they located?

A. Farmingdale, New York.

Q. 4. What is your position with that company at the present time?

A. At the present it is service manager.

Q. 5. How long have you been employed by Republic? A. Fourteen years.

Q. 6. Will you state the positions that you have held with the company since you started fourteen years ago?

A. Yes. The first few years were rather scattered and varied, from draftsman, assistant to production manager, assistant to factory manager, chief of time study, liaison engineer—in fact, that latter one interspersed the others from time to time.

* Page numbering appearing at top of page of original Reporter's Transcript of Record.

(Deposition of W. Howard Ehnmann.)

Then, in approximately 1939, I became assistant executive engineer for a period of approximately three years. That was followed by chief service engineer, by assistant service manager, and by service manager.

Q. 7. And your present position is service manager; is that correct? A. That is. [3]

Q. 8. Could you state briefly what some of your duties and work involved? Were you assistant executive engineer?

A. Yes. Generally, it was a matter of contact with the designing forces of the engineering department. The larger part of the job was one of personnel administration, in hiring, firing, and so forth. However, along with that were also other duties, such as the cost control of the designing end of it, which meant that we did have proposals to the Air Forces, all of which had to be priced out; changes that would come on through would also have to be evaluated. All of which did keep me in fairly close contact with the design.

Q. 9. Could you state some of your duties and work in your position as chief service engineer?

A. As chief service engineer, there were several phases of our activity that came under my control. The spare part situation was one; another was handbooks—in other words, the technical orders, operating, maintenance, repair. And the third function was one of corrective action, investigation of unsatisfactory conditions and their correction through the engineering department, recommendations for such corrective action.

(Deposition of W. Howard Ehmann.)

Q. 10. During the war you were the chief service engineer for Republic; is that correct? [4]

A. That's right.

Q. 11. And did you receive any reports concerning unsatisfactory conditions in the field?

A. All reports that came to the company, either through Air Forces channels or through our own service representation in the field, were processed through the Service Engineering Division.

Q. 12. Did you receive reports from all domestic installations—that is, in the United States?

A. Yes, we received unsatisfactory reports—that is, commonly known as URs—from all domestic bases of the Air Materiel Command. In addition to that, we of course had wide coverage through service representatives and regular reports.

Q. 13. How about foreign countries?

A. Because of censorship we did not have the full supply of URs coming on through. However, we did have fair coverage from service representatives.

Q. 14. That was your own service people of Republic?

A. In their letters; and, of course, upon their visits home, we would propose——

Mr. Beehler: May I interrupt for just a minute, and ask you what UR stands for?

The Witness: Unsatisfactory report. [5]

Mr. Beehler: Thank you.

The Witness: Which, incidentally, is an Air

(Deposition of W. Howard Ehmann.)

Materiel Command or Air Forces standard, used by all commands of the Air Forces.

Q. 15. And received by all companies?

A. Yes, that's true.

Q. 16. Now, you became service manager in 1945. Just what was the change-over in the organization, as far as Republic was concerned?

A. May I just correct that? In 1945 I became assistant service manager.

Q. 17. I see.

A. And at that time it was a merger between the Service Engineering Division of the engineering department and the then service department; and in that instance I became assistant service manager instead of chief service engineer. Approximately one year after that I became service manager over the entire installation.

Q. 18. In your work and duties did you have any experience insofar as hydraulic systems and fuel systems on airplanes were concerned?

A. Yes. That was the work of the position.

Q. 19. And are you familiar with hydraulic systems? A. I am. [6]

Q. 20. With Fuel systems, oxygen systems on planes? A. Yes.

Q. 21. Are you familiar with the fittings that were used on those systems? A. I am.

Q. 22. Are you familiar with the AN type fitting? A. I am.

Q. 23. I hand you a drawing which is in evidence as Amon Deposition Exhibit 2, and ask

(Deposition of W. Howard Ehmman.)

you if that is an exemplification of the type of fittings that were used on Republic planes in hydraulic systems and in fuel lines. A. It is.

Q. 24. Is that an exemplification of an AN fitting? A. It is that.

Q. 25. Do you know approximately how many of the fittings, as shown in Exhibit 2, were used on some of the planes which Republic manufactured? First you might give us a few of the types of planes manufactured by Republic during the war, and some approximation of the number of AN flared fittings that were used on some of those planes.

A. The major production of aircraft during the war was the P-47.

Q. 26. How many of those did you manufacture, if that is not confidential? [7]

A. Well, I don't believe it is. Something over 15,000 airplanes. Since that time we have manufactured or produced the F-84.

(Discussion off the record.)

Q. 27. Just approximately how many fittings of the AN type were used on the P-47?

A. Without counting them, I would estimate in the neighborhood of some three hundred on the P-47; more on the F-84. The systems have grown more complex. More systems have been added. And I would say that the F-84 has upwards of 500.

Q. 28. Could you tell just briefly what types of systems, and the things that are accomplished by them, are used on these planes, like the P-47—that is, what does the hydraulic system do?

A. The hydraulic system in the P-47 is actually

(Deposition of W. Howard Ehmann.)

a motivating force for retracting the landing gear and extending the landing gear, for operating the landing flaps, for operating the cowl flaps. Well, I believe that about covers it.

Q. 29. How about the dive brakes?

A. There is no dive brake on the P-47. There was, however, and is on the F-84. On the F-84 you have that added load on the hydraulic system, plus the aileron boost control, [8] which particular control amplifies the pilot's manual force on the stick, to give him a greater force-out at the ailerons for the maneuvering of the airplane.

Q. 30. Did you receive these unsatisfactory reports, the URs, with respect to hydraulic systems?

A. Yes.

Q. 31. And did that include any fitting or tubing failure?

A. There were no URs or reports from service representatives, to my knowledge, which covered the actual fitting. There were, however, unsatisfactory reports and reports from our representatives in the field on the installation of these fittings. In other words, the human element entered into it. It might have been a case of over-torquing of the nut, pulling up too tight, or a case of improperly supporting the line, improperly flaring the tube on assembly of the fitting, either insufficient flare or too large or too thin a flare. And that can happen at any time where you are using soft material of that sort and spin it or press it.

Q. 32. What has been the experience of Repub-

(Deposition of W. Howard Ehmann.)

lic with respect to the AN fittings—that is, on your unsatisfactory reports?

A. Well, from the absence of unsatisfactory reports, and from the fact that we have had no bad experiences with the fittings themselves, I would say that they were entirely [9] satisfactory.

Q. 33. Incidentally, could you tell us whether or not you are an aeronautical engineer? A. Yes.

Q. 34. You are?

A. Yes, a Bachelor of Science in Mechanical Engineering, majoring in aeronautical engineering.

Q. 35. In what college?

A. New York University, Daniel Guggenheim, School of Aeronautics.

Mr. Van Sciver: I think that is all.

Cross-Examination

By Mr. Beehler:

XQ. 36. Mr. Ehmann, during the period wherein you received reports, UR reports, on the AN fitting, were the 811 series fittings used also by Republic?

A. They preceded it. If I remember rightly, they preceded——

XQ. 37. Do you recall when you stopped using the 811 series?

A. I believe it was approximately 1943—in there somewhere; I can't be certain of my dates.

XQ. 38. What were the UR reports, if any, that came in in relation to the 811 series fittings?

A. I believe in the case of leakage. [10]

(Deposition of W. Howard Ehmann.)

XQ. 39. Can you recall what particular face of the fitting received the complaint that made the leakage?

A. I believe it was the pipe thread on it.

XQ. 40. Since your acquaintance with the use of fittings by Republic aircraft, have there been any triple fittings used other than either the 811 series or the AN series?

A. I know of none.

XQ. 41. With respect to either the 811 series or the AN series, have any of the UR reports been concerned with the locking of the sleeves in the nuts? A. I have seen none.

Mr. Beehler: That is all. No further questions.

Mr. Freeman: Are you willing to waive your signature to this deposition, if it is agreeable also to Mr. Beehler, counsel for the defendants?

The Witness: I am.

Mr. Beehler: That is satisfactory.

(Whereupon, at 10:50 a.m., the taking of the deposition of W. Howard Ehmann was concluded.)

SIGNATURE WAIVED. [11]

WILLIAM D. CLARK

having been first duly sworn by Irwin T. Shaw,
the notary public herein, testified as follows:

Direct Examination

By Mr. Freeman:

Q. 1. Will you please state your name?

A. William D. Clark.

Q. 2. Where do you reside?

A. 115 Clinton Avenue, Mineola, New York.

Q. 3. By whom are you employed?

A. Republic Aviation Corporation.

Q. 4. And when did you commence your employment with that company?

A. July 21, 1939.

Q. 5. In what capacity were you first employed?

A. Draftsman in the engineering department.

Q. 6. Is that with respect to any particular type of drafting work in the engineering field?

A. Yes. That was in the landing gear group, in the hydraulic section of the landing gear group.

Q. 7. What is meant by "landing gear" with respect to planes?—just for the purpose of the record. [12]

A. Well, that would be the wheels and the shock-absorbing mechanism attached to the wheels to absorb the shock on landing after coming down from being airborne.

Q. 8. Then the landing gear is that structure, including the wheels, upon which the plane lands from a flight? A. That's right.

(Deposition of William D. Clark.)

Q. 9. And the landing gear structure is the mechanism that is sometimes moved inwardly within the body portion or the wing portion of the plane, so as not to interfere during flight?

A. That's right. It's usually retracted after takeoff, and extended for landing.

Q. 10. And what is the mechanism, just briefly, by which the landing gear is retracted or let down and moved back up into the plane proper?

A. There is a landing gear hydraulic retracting cylinder which is operated by the hydraulic system through a selector valve. This selector valve, of course, is in the aeroplane so you can select up or down on the gear.

Q. 11. And this selector valve is under the control of the pilot? A. That's right.

Q. 12. And the landing gear mechanism and the structure by which it is retracted—that is, let down or raised—is [13] operated through the instrumentality of hydraulics? A. That's right.

Q. 13. In other words, hydraulics is the motivating force? A. That's right.

Q. 14. How long were you in the engineering department as a draftsman in the landing gear group of Republic Aviation Corporation?

A. I was in that group about two years.

Q. 15. That would bring it to about 1941?

A. About '41.

Q. 16. In 1941, or after you left the engineering department as a draftsman, what department did you go into?

(Deposition of William D. Clark.)

A. I went to work for Mr. Bergh, who was then chief hydraulics engineer, as head of the engineering research laboratory, the hydraulic end of it—in other words, the hydraulic research laboratory.

Q. 17. And what was your particular work then in the hydraulics lab?

A. I was charged with the testing of hydraulic cylinders, landing gears, valves, and all of the components that go into a hydraulic system, to prove their worth, whether they were good or bad, or of good design or of bad design, and so forth. [14]

Q. 18. While in the hydraulics lab did you have occasion to test the equipment under conditions simulating that which might be involved in an actual airplane?

A. That was one of the functions of the laboratory. We had to make parallel installations in the laboratory—the same as it would be in the airplane.

Q. 19. What do you mean by “parallel installations”?

A. Well, an installation similar to the aircraft installation.

Q. 20. In other words, comparable?

A. Comparable. And prove that out in the laboratory before we flew it, if possible?

Q. 21. And in the hydraulics lab what was your practice with respect to simulating flight conditions? Did you just proceed as you might in a flight, or did you proceed to test at excess pressures?

A. Well, in the laboratory we always would operate at airplane operating pressures. We would

(Deposition of William D. Clark.)

load the gears with lead weights to simulate the air loads that might be encountered in flight, to make sure that our pressures and our equipment were adequate to raise and lower the gears under those flight conditions, and all cylinders and tubing, and so forth, had to be pressure tested to a specified Air Force specification of a proof pressure which was above your [15] normal operating pressure. And then it also had to be tested up to an ultimate burst pressure to determine whether or not the design was practical and was meeting specifications.

Q. 22. You mentioned tubing in your last answer. Is that the tubing by which the hydraulic fluid is transmitted from one source to another source?

A. That's right.

Q. 23. How were these tubes connected up to the control mechanism at one end and the instrumentality, which was to be operated, at the other end? What was used to make that connection?

A. Well, we used the flare tube and nut, sleeve, and fitting, which I believe you call the Parker fitting.

Q. 24. Now, you said "flared tube."

A. Flared tubing.

Q. 25. Just for the record, that is a flare, somewhat funnel shaped, formed from one end of the tube?

A. That's right.

Q. 26. And then, on that tube you said there was a Parker fitting or Parker type fitting, comprising a nut, body, and sleeve?

A. That's right.

Q. 27. And through the instrumentality of the

(Deposition of William D. Clark.)

nut, body and sleeve—you correct me if I misstate it—the tube was [16] actually connected up to the instrumentality to be operated?

A. That's correct.

Q. 28. And I take it the same thing existed at the opposite end of the tube where you had a selector control or valve as in the case of your retractable landing gear?

A. That is correct. Each tube assembly had two fittings on each end—one on each end.

Q. 29. In this testing department that you were in as early as 1941, how long were you in that particular division of your company?

A. I was in there about up to 1943, I think it was—about two years.

Q. 30. When you simulated, as you have testified, the operating conditions of the plane, particularly in the hydraulics field, did you have occasion to use the Parker type fittings in your test laboratory?

A. We used them entirely, in fact, in the laboratory. We had no other type.

Q. 31. When you say "We used them," does that mean that you personally had occasion to use them? A. That's right.

Q. 32. In other words, you did the manual or physical work in connection with making up these tests? A. That's correct. [17]

Q. 33. In other words, the get-ready?

A. That's right.

Q. 34. Were these fittings used once and dis-

(Deposition of William D. Clark.)

carded, or what are the facts with respect to the fittings?

A. No. Usually in the laboratory we would have certain stock fittings that were designated for the laboratory; and we would use the same fittings probably over and over and over again in all different sizes. We had a stock of fittings in about six or eight different sizes. And those fittings were used not on one test but in several tests, as long as the fitting was usable. By that I mean if somebody hadn't knocked the threads when tightened by the wrench, or something like that, the same fittings we used probably five or six hundred times.

Q. 35. On the different flares?

A. On the different flares, the different tubings, the different units, and so forth.

Q. 36. So the fittings were in fact re-used and used over again? A. That's right.

Q. 37. Did you require as good a fitting, after they were used a dozen times, as when you were making the first installation with the fitting?

A. Oh, yes. [18]

Q. 38. And what was your experience with the re-use of the Parker type fitting? How did they stand up? What did they do?

A. They stood up very well. Of course, we were more apt to use steel fittings of this type than aluminum fittings, due to the fact that after the test you would throw a fitting back in the stock drawer, and aluminum, of course, or Dural would have the threads buggered out or scratched, and the flare

(Deposition of William D. Clark.)

would be scratched. So we used a lot of steel fittings for the simple reason that they didn't score up so easily under laboratory conditions. Of course, there they got very hard usage. But they were always satisfactory up to the point where some physical damage would occur by mishandling.

Q. 39. And that was proper use of the fittings which permitted their re-use many times?

A. That's right.

Q. 40. In connection with these tests that you made on hydraulic cylinders, and the like, where you used tubes and fittings of the kind here involved, which would burst first—the cylinder or the fitting? In other words, which would give way first?

A. Well, in all cases when you are going to make a test of that type, of course, you pick the proper size of [19] fitting and the proper wall tubing. When you are running a burst test, you design for the cylinder to go to its maximum without any breakage on other components, and the cylinder would always go first.

Q. 41. In other words, the fitting, including its gripping or retaining of the flare of the tube, would stay put—using that language—and would so stay even though the hydraulic cylinder might burst?

A. That's correct; that's right.

Q. 42. You were talking a minute ago about the hydraulic cylinders bursting. Can you give me the range of pressures which were used when you made tests—that is, pounds per square inch?

A. Yes. We operated at that time on a one

(Deposition of William D. Clark.)

thousand pounds per square inch hydraulic pressure, and we had a proof pressure on the cylinder of 1,500 pounds. Then we had a burst pressure of 2,500 pounds.

Now, the 1,000-pound system—tubing, fittings, cylinders and valves, and so forth, should not fail below 2,500 pounds, although we were only operating normally at 1,000 pounds. And I remember on the P-47 main landing gear—the nomenclature is now F-47—the burst pressure on those ran up to 4,500 PSI before the cylinder burst. That's pounds per square inch. So we had a good margin of safety on that. [20] At that time the fitting and the tubing held up to that pressure, and the cylinder was the first to fail.

Q. 43. You mentioned the P- or F-47. That was a plane manufactured by Republic Aviation for the Government? A. That's correct.

Q. 44. And were the Parker type fittings used in those planes? A. Yes. They were.

Q. 45. To your personal knowledge?

A. Yes, they were.

Q. 46. Do you have any estimate with respect to the number of fittings of the kind here involved that were actually used in a P-47?

A. Well, of course, they were used in several systems. I would say probably 350 to 450—around there somewhere.

Q. 47. In other words, if you had, say just in rough numbers, 300 fittings, that would mean you were coupling at least 150 tubes?

(Deposition of William D. Clark.)

A. That's correct, yes.

Q. 48. In other words, fittings usually are twice as many as tubes?

A. That's right; one tube assembly amounts to two fittings and one tube.

Q. 49. That is the usual arrangement. There might be [21] certain exceptions in cases of that kind?

A. That's right.

Q. 50. And I am correct, am I not, that your company manufactured P-47s by the thousands?

A. Yes. I think we finally ended up at the end of the war with about 15,000 airplanes?

Q. 51. Now, you have carried us up to about the early part of 1943, while you were in charge of the hydraulics testing in the hydraulics lab. Did you continue to stay in that department, or what was your next step in the company?

A. After I was in the lab, I went over into service liaison engineering. I was a service liaison engineer, which consisted of close liaison between the engineering department and the service department. In that capacity, as failures would be reported from the field on operational aircraft, which were failures due to some engineering or bad installations in production, and so forth, it was my job then to advise the engineering department of such failures and try and get those things corrected on airplanes in production at that time so that the same failure would not recur again on subsequent aircraft.

Q. 52. In other words, you translated what happened out in service back to engineering?

(Deposition of William D. Clark.)

A. That's correct. [22]

Q. 53. So that the corrections might be made?

A. I was more or less in the hydraulic end of it, the hydraulic specializing end of it. I think we had several service liaison engineers at the time. I have been from that time on, when I left the hydraulic laboratory, more or less of a hydraulics specialist; I have specialized in aircraft hydraulics.

Q. 54. So even while liaison engineer between service, on the one hand, and engineering on the other, you were still specializing in hydraulics?

A. That's correct.

Q. 55. And in the kind of hydraulics that had to do with the landing-gear mechanism and the flap-operating mechanism? A. That's right.

Q. And is it also true that as a liaison engineer you just carried on that which you were in fact doing while with the test laboratory?

A. That's correct—only not in the manual manner which I worked in the laboratory.

Q. 56. Is it fair for me to say that as a liaison engineer you were coordinating service problems with engineering? A. That is correct, yes, sir.

Q. 57. Now, are you still in that department?

A. Well, that department was consolidated, I believe. [23] At that time service engineering came under the service department, but it was a little disconnected, and they made a clarification of the job and designated it as a definite function of the service department.

I went then into the service department, in which

(Deposition of William D. Clark.)

I had been more or less at the time as a service engineer. I believe that was about a year or so later, when I first went in.

Q. 58. In other words, you were a liaison engineer about a year? A. That's correct.

Q. 59. Thereafter, your work there was consolidated with service and service engineering?

A. That's correct.

Q. 60. And have you remained in that——

A. I remained in the service department until about 1943 or '44, and then I went back into engineering to design the F-84 hydraulic system. At that time there didn't seem to be any competent hydraulic—I don't say "competent"—but probably any man free to design the F-84 hydraulic system.

Q. 61. When you say "any man free," you are referring now to the people employed by Republic Aviation?

A. That's correct—and by their own engineering department as hydraulics men or hydraulics designers. So I actually [24] transferred back into engineering from the service department; and for a period of about a year and a half I was working on the design of the hydraulic system for the F-84.

Q. 62. And the F-84 is a plane that is just now——

A. It is at the moment in production by Republic.

Q. 63. And that plane employs the hydraulic system which you designed for its use?

A. That is correct, sir. Much more complicated, however, than the F-47 system.

(Deposition of William D. Clark.)

Q. 64. In other words, the hydraulics were much more complicated? A. That's correct.

Q. 65. The problems were a little tougher?

A. Much tougher.

Q. 66. Now, let me hand you an exhibit drawing which has been marked Plaintiff's Exhibit No. 2 (Amon deposition), and I will ask you to look at it and tell me whether you recognize that as a Parker type fitting?

A. Yes, that's a Parker type, correct.

Q. 67. Now, you testified that these fittings required assembly and disassembly while you were in the testing laboratory. Is it likewise true that they require assembly and disassembly in actual plane installations?

A. Yes, they do. Of course, they aren't assembled and [25] disassembled as much. Once they are installed in the airplane, unless something goes wrong with an operational unit, why, the unit has to be removed and replaced by another unit.

Q. 68. So that when you say an operating unit or an operation unit, if something goes wrong with it, that requires a substitution or a new unit to replace it, which necessitates disconnecting the tube leading to that unit through the medium of the fitting; correct? A. That's correct.

Q. 69. And then that fitting is re-used with the new unit that is installed in place of the unit that has been taken off? A. That's correct.

Q. 70. And I take it that you require the same precision fitting or characteristics of the fitting when

(Deposition of William D. Clark.)

you install the new unit as was required when the old unit was in use? A. That's right?

Q. 71. In other words, pressures are the same and operating conditions are substantially the same?

A. That's correct.

Q. 72. I call your attention to the sleeve on Plaintiff's Exhibit 2 (Amon deposition), and will ask you if there is any advantage in providing an angle on that sleeve so that it tapers from its heel towards the nose? [26]

A. You mean this external angle here (indicating)?

Q. 73. Yes.

Mr. Freeman: Let the record show the witness has pointed to the external angle marked "sleeve head angle."

A. Yes, that's quite important. In fact, if that angle wasn't there, much as shown, the nut might have a tendency to gall on the nut itself. The sleeve in the nut would have galling between the sides of the sleeve. But I remember that its main function, from the way it was used, was to give it hoop tension. It gives it hoop tension whereby, when the nut is tightened up on the fitting, this lower end of the sleeve is allowed to flex out without the end of the sleeve gouging into the flare on the tube. It gives the sleeve a certain amount of flexibility under its compression load from the nut. It prevents the scoring or the lining of the tube flare so it doesn't imbed itself in the tube flare.

Q. 74. Now, just so the record is straight, when

(Deposition of William D. Clark.)

you talk about tightening the nut, you are now talking about the member illustrated on Plaintiff's Exhibit No. 2 (Amon deposition) as the "nut"?

A. That's right. I am talking about this nut right here (indicating), which pulls up against the sleeve and pulls the flare against the fitting.

Q. 74. And where is the engagement between the nut and the [27] sleeve?

A. That would be on the shoulder of the sleeve and the shoulder of the nut, where we would get our engagement between the sleeve and the nut. It would be on the shoulder of each.

Q. 76. And those parts are marked on Plaintiff's Exhibit No. 2 (Amon deposition) "sleeve shoulder" and "nut shoulder"; correct?

A. That's correct.

Q. 77. Now, as the nut is brought home or put under load, did I understand you to say that the lower end or the nose end of the sleeve springs slightly outwardly or is put under tension?

A. That's correct.

Q. 78. Is that what you meant by "hoop tension"?

A. That is what I meant, yes; so you could get full surface contact of the inside sleeve angle against the flared tube; so you would get full surface contact and not just point contact of this edge here of this sleeve. It allows it to move out and get full surface contact rather than just point contact.

Q. 79. And the movement is greater, or the expansion is greater at the lower end of the sleeve than at the region of contact or the shoulder?

(Deposition of William D. Clark.)

A. That's right. This section at the lower end, of course—the section through there (indicating)—is much smaller [28] than the section through your shoulder, so that under load, and especially on a conical surface such as this where you would pull down and it would tend to move out, expand out, so that it will be allowed to expand out and engage on a full surface.

Q. 80. So that you get the necessary gripping contact between the sleeve and the flare to insure a proper fitting?

A. That's right—surface engagement.

Q. 81. And as you have said, that is because of the angle on the outside of the sleeve?

A. That is correct.

Q. 82. Now, when you have the expansion or extension, using any term that you have just mentioned, what would happen if the sleeve actually galled the inside of the nut when you disassembled the parts?

A. Well, if this angle wasn't there, if the sleeve angle wasn't there, when you pull down on there and this did expand or move out, the sleeve moved out, you would get galling between the sleeve and the nut; and when the nut was removed, or when you wanted to take the fitting apart, this sleeve would turn with the nut, in turn scoring the tube flare, grooving the tube flare and actually ruining the tube. You would have to replace it because of bad scoring. And that also relieves that condition, by having that sleeve head angle [29] in there.

(Deposition of William D. Clark.)

Q. 83. In other words, it is desirable to permit the nut to be removed with respect to the sleeve without it actually rotating the sleeve on the flare?

A. That's right.

Q. 84. Now, you mentioned scoring, and you said the tube couldn't be reused. Is there any danger or any hazard brought about by scoring of the tube?

A. Yes, definitely. When the flare is scored or grooved, that offers a potential failure at that point, the same as cutting through the tube or through the flare. Under pressure pulsations this scoring would become greater and greater until you would get a subsequent failure of your tube flare.

Q. 85. By "potential failure," do I understand that that is setting up a condition which ultimately may bring about a hazardous condition?

A. That is correct—a tube failure with subsequent loss of hydraulic fluid and an emergency condition being presented as far as the hydraulic system is concerned.

Q. 86. So that it is desirable to make the installation or reinstallation, when the fitting is reused, without scoring or marring the flare itself?

A. Whenever we have a tube, a fitting taken apart and [30] a new unit put in the system, that is one of the points of inspection—that the tube flare shall always be reinspected before assembly of the new unit.

Q. 87. So that if in the event it is scored, that tube and the flare thereon is no longer reusable?

A. That is correct.

(Deposition of William D. Clark.)

Q. 88. So that the removal of the nut, which is necessary when you separate a fitting, must not jam with the sleeve? A. That's right.

Q. 89. Now, you used the word "gall." Do you mean that the sleeve and the nut rub against each other, or score or mar or scratch?

A. That's right—it is a mark due to friction, a score-mark due to friction on tightening.

Q. 90. That's really excessive friction?

A. That's excessive friction.

Q. 91. If the nut jams with the sleeve, then the friction or the scoring takes place between the sleeve and the flare of the tube?

A. The tubing.

Q. 92. And that in turn, if such does happen, precludes the tube from being reused?

A. That's right.

Q. 93. Or if reused, sets up a potential hazard or potential [31] failure?

A. A potential hazard. If it isn't discovered, it may be reused; and if it's reused, you have a point of potential failure.

Q. 94. Is it desirable that the nut shoulder and the sleeve shoulder overlap as much as possible?

A. Oh, yes, that's very necessary.

Q. 95. Is that to give the necessary strength to the parts, one with respect to the other?

A. That's right. If you only had hairline contact between the shoulder of the nut and the shoulder of the sleeve, your sheer section through the nut shoulder would be less; your centering character-

(Deposition of William D. Clark.)

istics of the sleeve in regard to the nut when pulled down on the thread would be less; and your compression area would be less, which is dangerous under high pressures. You want as much thickness through there as possible and as much engagement between the sleeve nut and the sleeve as possible, without too much weight, of course.

Q. 96. Did I understand you to say "without too much weight"?

A. Well, that has to be considered in aircraft, of course. We can't be putting in fittings over-sized, sections that are over-sized. That comes in the design of any part of aircraft—that weight is a definite factor. [32]

Q. 97. As you say, it is desirable to have the maximum contact between the sleeve shoulder and the nut shoulder, but you still want to permit the nose end of the sleeve to swing outwardly in order to get hoop tension without affecting the shoulder contact? A. That's right.

Q. 98. And does the fitting that is exemplified by Plaintiff's Exhibit No. 2 (Amon deposition), the Parker type fitting, do just that?

A. Yes, I would say it did.

Q. 99. Now, the statements that you have made and the explanations that you have here made, have been from your actual experience and knowledge in the use of these fittings?

A. That's correct, sir; yes, sir.

Q. 100. What might happen if there is in fact some scoring between the sleeve shoulder and the

(Deposition of William D. Clark.)

nut shoulder? Is that hazardous or does that set up any potential failure?

A. Well, it would, on assembly and disassembly, because the sleeve would rotate with the nut, in turn scoring the tube in one case; and in fact that's the prime factor of having the nut rotate on the sleeve and the sleeve not rotate on the tube.

Q. 101. However, if there was some scoring between the shoulder of the nut and the shoulder of the sleeve, would that [33] in any way impair the actual fitting from functioning as a sealing member?

A. No.

Q. 102. And there would not in fact be any real hazard set up due to that type of scoring?

A. No, there would be no hazard there.

Q. 103. As I understand it, where you have to keep away from scoring is on the tube proper?

A. That's right.

Q. 104. Adjacent to the flare?

A. That's right; there should be no rotation between your sleeve and your tube; the rotation should be only between your nut and your sleeve.

Q. 105. Now, you mentioned hairline contact or narrow contact between the sleeve shoulder and nut shoulder. Is there any advantage with respect to spreading the friction between the nut and the shoulder of the sleeve over a greater area by having maximum contact?

A. Yes, there is. Of course, now, with hydraulic systems we get into a little different condition than we do with, let us say, an oxygen system where the

(Deposition of William D. Clark.)

same fittings are used. In an oxygen system there can be no oil adjacent to the fitting or on the fitting. In a hydraulic system you have oil. As a rule, you have to lubricate your units with [34] hydraulic oil and flush them before installation. In a hydraulic system there would be oil present between the nut and the sleeve when installed, and that gives us an ideal condition as far as friction is concerned between the nut shoulder and the sleeve shoulder. But now I speak of the oxygen system, where there can be no oil whatsoever. The nut and the sleeve are of two different materials. When you have two different materials in friction, the wider surface you have the less possibility you have of the harder material embedding itself into the softer material. In the case of this fitting here, you have two different materials, and it is necessary to have as wide a contact as possible at the point of engagement.

You see, there are several different conditions you have to meet; and in all cases, regardless of whether the fitting is oiled or not oiled, the wider surface contact you have between the sleeve and the nut, the more desirable it is.

Q. 106. Are you familiar with the type of fitting wherein the sleeve has a double angle, or what is sometimes called a differential angle, between the inside of the sleeve and the outside of the flare?

A. Yes.

Q. 107. And have you used such fittings?

A. Yes, we have used those, too.

(Deposition of William D. Clark.)

Q. 108. Does that bring about contact between the flare and [35] the nose end of the sleeve first?

A. Would you mind putting that question to me again?

Q. (Q. 108 read by reporter as recorded.)

A. Yes.

Q. 109. And as the nut is tightened or put under more torque, the space between the sleeve and the outside of the flare diminishes?

A. That's right.

Q. 110. So that you go from what might be called a narrow or line contact to a greater or surface contact?

A. Surface contact, that's right, with a little bit more flexibility than you have in the other one.

Q. 111. And when you said "with a little bit more flexibility than you have in the other one," you were then referring to the type shown in Plaintiff's Exhibit No. 2 (Amon deposition) as "the other one"; correct? A. That's correct.

Q. 112. In other words, if you over-torqued the type of fitting as shown in Plaintiff's Exhibit No. 8 (Amon deposition), what would happen—a small amount of over-torquing?

A. You would probably get some embedding in the tube flare itself.

Q. 113. In other words, the sleeve would embed somewhat in the tube flare? [36]

A. That's right.

Q. 114. But would that bring about any hazard-

(Deposition of William D. Clark.)
ous condition?

A. Not unless it was done several times—re-assembled and disassembled.

Q. 115. In other words, the differential angle gives you a little bit of flexibility?

A. That's right; it gives you more flexibility on installation.

Q. 116. So you can over-torque? A. Yes.

Q. 117. Of course over-torquing to the extent of ruining the fitting or the flare would be just too bad?

A. That's right; but it isn't as bad with this two-angle fitting or two-angle sleeve. In fact, in my experience, it's a much better sealing medium.

Q. 118. In other words, it gives you line contact or narrow contact first, and then greater——

A. And greater surface contact.

Q. 119. When you say from your experience, I then take it that you have actually observed the operation of fittings of the kind shown in Plaintiff's Exhibit 8 (Amon deposition) and have actually used them? A. That's correct.

Q. 120. You have used them both in the testing laboratory [37] as well as observing their operating characteristics as an engineer, and have seen them in use on planes? A. That's right.

Q. 121. Now, while you were in the service engineering, did you get any reports with respect to the operations of planes involving hydraulic systems?

A. Yes, that was my function in the service department as the hydraulics specialist, let us say.

(Deposition of William D. Clark.)

During the war all of the unsatisfactory reports that came into the service department from the using activities were separated in their different categories as power plant, hydraulics, fuel, armament, and so forth; and all of the hydraulic URs, as we called them—unsatisfactory reports we call “URs”—were handed to me to find out what caused the failure, whether it was the fault of manufacture or whether it was the fault of a material failure, to determine whether it was due to misuse by the using services, and determine the cause, corrective action to be taken, and answer that UR to the Air Materiel Command to their satisfaction.

Q. 122. You said these reports came to you. Were those reports only from the United States, where planes were based?

A. No, those were overseas reports and field of combat, as well as domestic reports here in the United States.

Q. 123. In other words, anything that was unsatisfactory [38] with respect to hydraulics, either in this country or abroad or in combat zones—that information, when it came back to Republic Aviation, came to your attention? A. That's right.

Q. 124. And you were to do something about it?

A. That's correct.

Q. 125. Again, those reports that were brought to your attention related specifically to the hydraulics? A. That's right.

Q. 126. What was your experience over the war period, or the period that you were operating in the

(Deposition of William D. Clark.)

service engineering division, with respect to Parker-type fittings of the kind that are here exemplified by Plaintiff's Exhibits 2 and 8 (Amon deposition)?

A. As I remember it, we had very few fitting failures. By "fitting," I am talking about the assembly itself—the nut, the sleeve. I presume that is what you mean by the fitting—you mean the whole assembly?

Q. 127. You tell us what you have been testifying to as a fitting, and that will be better.

A. Well, taking the whole thing; as a rule, when we mention "fitting" we mean the whole assembly, and not the sleeve and the unit that goes into the operational unit and the tubing flare. [39]

Q. 128. In other words, the parts that are exemplified on the drawings that you have in front of you, Plaintiff's Exhibits 2 and 8; correct?

A. That is correct, yes. We have had some people that call "fittings" just the part that screws into the operational unit and disregard the nut and sleeve. Naturally, the nut and sleeve are part of the fitting. I just wanted to get that clarified.

Q. 129. And in all of the testimony that you have been giving here you have been talking about a fitting in the sense as illustrated in Plaintiff's Exhibits 2 and 8?

A. Yes, that's right.

Q. 130. All right, proceed.

A. As I remember it, as far as the fitting failures are concerned, we did have some. I think there were about eight or nine tube flare failures. There were a couple of sleeves that split. And we did have

(Deposition of William D. Clark.)

somewhere, when the nut was installed on to the fitting which goes into the operational unit, it was cross-threaded and installed that way, and when disassembled, of course, it was bad. But the majority of the tubing failures or flare failures I ran down to be nothing more than poor flares to begin with—flaring more one side of the tube than the other with improper flaring tools.

The split sleeves—we did get one exhibit back on [40] a split sleeve, and we discovered that the sleeve had been scored prior to installation, and under pressure pulsations—maybe thousands of pressure applications—had slowly failed up to the point where it failed.

On these nuts being cross-threaded on the fitting and the operational unit—that is something that during the war we had no control over, as far as some of the mechanics that were employed.

Q. 131. Your company used literally millions of these fittings?

A. I would say so, yes. In 15,000 airplanes—we used them in about four different systems, and we used a lot of them in the hydraulic system itself—I would say we didn't have more than fifteen or sixteen failures, maybe.

Q. 132. So percentage-wise, that was a very small amount?

A. I would say so.

Q. 133. When you went into the service engineering department, who was your immediate superior?

A. Mr. Hlavac. Actually I worked for Mr. Hlavac, whose immediate superior was Mr. Ehmann.

(Deposition of William D. Clark.)

Q. 134. So that you were in Mr. Ehmann's department, and that is the Mr. Ehmann who is sitting in the room with us at this moment?

A. That's right. [41]

Q. 135. Now, the tubes and tube couplings or the fittings of the kind that you have been testifying about, when used in planes, are in many cases used in cramped quarters or confined spaces?

A. That's very true.

Q. 136. And does that increase the problem of assembly? A. Definitely.

Q. 137. And I take it likewise with disassembly?

A. That's correct.

Q. 138. And are there instances where the tube is bent at an angle closely adjacent its flared end?

A. In many cases, yes; in many cases.

Q. 139. So that it is desirable, then, when removing the part, to have the nut separate from the sleeve so that you can go around the bend?

A. That's right.

Q. 140. What would happen if the nut and sleeve were jammed or were made out of one piece? Could you then go around that bend?

A. No, it would be impossible.

Q. 141. So that it is desirable, and actually a necessity, to have the parts so cooperate as to permit easy disassembly of the nut?

A. That's right. [42]

Q. 142. Now, you are testifying about that from actual experience?

A. That's from actual experience, yes, sir.

(Deposition of William D. Clark.)

Q. 143. From actually seeing and doing?

A. Both.

(Discussion off the record.)

Cross-Examination

By Mr. Beehler:

XQ. 144. Mr. Clark, will you tell us your age, please? A. 38.

XQ. 145. You mentioned, Mr. Clark, the testing of Parker-type fittings in the hydraulics research laboratory. I believe you used the expression. Were they all fittings of Parker manufacture, or were there fittings of other manufacture also?

A. Back at that time we were purchasing practically—As I remember it, at that time a majority of them were from Parker, but it is very possible that some of them were coming from other manufacturers. I am not well versed in the procurement end of it. But they were all similar, all the same as far as design is concerned.

XQ. 146. So far as you knew, then, they might have been Parker fittings, or they might have been somebody else's fittings; isn't that right? [43]

A. As far as the manufacture of them is concerned, yes.

XQ. 147. With respect to those fittings, were they all AN standard fittings, or were some of them AC-811 Series fittings?

A. At the beginning they were all AC-811, which was known as the AC or AN-811 fittings. It is now AN-811; at that time it was AC-811.

(Deposition of William D. Clark.)

XQ. 148. During that period of testing was there ever brought to your attention a fitting difficulty with respect to the AC-811 Series fittings wherein, when the fitting was uncoupled, the sleeve stuck in the nut?

A. Yes, there was. At the very beginning of my experience in the laboratory we did have some trouble with the sleeve sticking in the nut.

XQ. 149. And were they Parker-type fittings?

A. They were Parker-type, yes.

XQ. 150. Were they fittings of Parker manufacture?

A. That I couldn't say, whether they were manufactured by Parker or somebody else.

XQ. 151. However, they were the AC-811, I believe you said? A. That's correct.

XQ. 152. In the hydraulic testing which you did—those testing systems which were, I believe you mentioned, parallel [44] to conditions which existed in planes— A. Yes.

XQ. (Continuing): —did you test for the entire hydraulic system, including making tests on the fittings as well as the rest of the systems?

A. Yes.

XQ. 153. Did you make any express tests on fittings?

A. We did run a series of tests on flares and fittings to prove the fitting itself.

XQ. 154. Did you make breakdown tests on fittings?

A. That's correct—testing the flares themselves

(Deposition of William D. Clark.)

to make sure the flares and the fittings were going to be as leak-proof as possible and to withstand the pressures to which they would be subjected, yes, sir.

XQ. 155. How high did you go on pressure-testing the fittings?

A. We have gone as high as 10,000 pounds per square inch.

XQ. 156. Did you find fitting failures at that pressure?

A. No fitting failures, but we did have tube bursting failures; that was the stainless steel tube, and the tube would always burst before the flares would pull from the fitting.

XQ. 157. That was what pressure, did you say?

A. 10,000 pounds per square inch. [45]

XQ. 158. How much safety factor does that give?

A. We based our calculations on 1.5 operation pressure, one and a half times your operation pressure on fitting design, as far as going from a dural fitting to a steel fitting. A fitting shouldn't fail. The flare shouldn't blow from the sleeve below two and a half times your operational pressure.

XQ. 159. And the operational pressures which you mentioned in connection with those tests were how much?

A. The tests that we normally ran in the laboratory were at 1,000 pounds per square inch.

XQ. 160. So that a safety factor of two and a half would have been twenty-five hundred?

A. Twenty-five hundred pounds per square inch

(Deposition of William D. Clark.)

would be your safety factor, which is normally, you figure, your burst pressure.

XQ. 161. Then with the 10,000-pound test, you were what—six times over the safety factor?

A. Well, in that test, in the thousand-pound operation, we were using dural fittings. When we were going to the burst pressures, to burst operational units, to find their burst points, we would use a steel fitting, a steel nut, with stainless steel tube, and possibly double flare with the stainless steel tubing. We figured on a safety factor of 10,000 pounds at one and a half, so that we could carry the fitting and the [46] tubing up to 15,000 pounds per square inch; and we had calculated that the unit should burst at 8,000, but it carried on to two more thousand PSI. But we wouldn't have gone above 12,000 with the safety factor giving us fifteen—we wouldn't have gone above 12,000 if the unit hadn't burst at that point.

XQ. 162. Actually, then, isn't it true that if the fitting was capable of standing, let us say, 6,000 pounds, it would have been amply safe for the installation that you were then concerned with?

A. Are you referring to this burst test we were running, or the normal operational?

XQ. 163. The normal operational of the hydraulic system. A. With the dural fitting?

XQ. 164. Yes.

A. Oh, yes; 6,000 would have been satisfactory, although possibly a little heavier than necessary.

XQ. 165. Now, I direct your attention, Mr.

(Deposition of William D. Clark.)

Clark, to Plaintiff's Exhibit No. 2 on the Cleveland deposition. I believe that in your direct testimony you referred to the sleeve as springing outwardly to allow full surface contact. That's correct, isn't it?

A. That's correct.

XQ. 166. You also had your attention called on the same exhibit to an angle on the exterior of the head of the sleeve, [47] labeled on the exhibit "sleeve head angle."

A. That is right.

XQ. 167. Is it true that that angle is necessary in order to permit the sleeve to spring outwardly to allow full surface contact?

A. You would need a thinner section at the bottom than you do at the top to allow more flexing on the bottom on an inclined plane, to get flexing out of your sleeve.

XQ. 168. Suppose in that particular exhibit drawing, instead of having the sleeve head angle there indicated, you had a clearance of a corresponding amount. Would not the sleeve spring outward also under those conditions to allow full surface contact?

A. Do I interpret that question correctly? Do you mean a clearance around the entire circumference of the sleeve, a constant circumference from the top to the bottom?

XQ. 169. Yes, so that the exterior would be cylindrical instead of frusto-conical.

A. Well, then, you would possibly get bending also at the point where the leg of the sleeve meets

(Deposition of William D. Clark.)

the L-section at the corner, the thin section of the sleeve.

XQ. 170. You are referring to the thin section adjacent to the sleeve shoulder and the nut shoulder junction; is that right? [48]

A. That's right, yes.

XQ. 171. Did you ever see a sleeve bend at that point?

A. No; that would take a sectioning of the sleeve and actual microscopic examination of the material at that point.

XQ. 172. Your answer is purely hypothetical?

A. Purely hypothetical as far as that is concerned.

XQ. 173. Now, I believe you also said, Mr. Clark, in your direct testimony, that there was necessary as much surface contact as possible between the portion labelled "sleeve shoulder" and the portion labeled "nut shoulder"? A. That's right.

XQ. 174. Suppose that contact on the drawing before you were reduced by an overall of four-thousandths of an inch. Would you still have a good coupling, do you think?

A. Is that four-thousandths on the——

XQ. 175. On the diameter.

A. On the diameter. That's two on the radii; right?

XQ. 176. That is right.

A. It is possible it would be satisfactory, but that is a stress engineer's tear-out analysis, and I wouldn't state whether it would be satisfactory or not.

(Deposition of William D. Clark.)

XQ. 177. You don't know——

A. I know that it is desirable to have as much surface [49] contact as possible.

XQ. 178. You don't know, then, whether or not the amount of surface contact provided in the drawing of the fitting there shown is absolutely necessary?

A. That's correct.

XQ. 179. Now, I believe—I may be wrong in my recollection—that you said that if it were not for the sleeve head angle as designated on Exhibit 2, the sleeve would turn with the nut therefore score the body and the flare. Did you make that statement?

A. That's right.

XQ. 180. Will you state for the record how the sleeve head angle prevents the sleeve from turning with the nut?

A. The only contact that is shown on this particular exhibit between the nut and the sleeve is the contact between the sleeve shoulder and the nut shoulder. Now, the minute that this fitting would be disassembled, as you back off the nut from the thread, you are getting the nut coming away from the sleeve shoulder. That is almost immediate before you take a sixteenth of a turn on your wrench. If there were side contact between the sleeve and the nut, there would be engagement; and because the sleeve is free to rotate about the tube, it is possible that the nut would rotate the sleeve due to the engagement between the sleeve and the nut [50]

XQ. 181. You mean the sleeve head and the nut?

(Deposition of William D. Clark.)

A. That's right. Now, that is worse in assembly than it is in disassembly.

XQ. 182. Would it be true to say, Mr. Clark, that you have put together and taken apart 10,000 fittings of this kind? A. I would say so.

XQ. 183. You know, do you not, that there is a very definite specified clearance between the exterior of the head of the sleeve and the interior of the nut?

A. That's right, if made to specification.

XQ. 184. You know that that clearance is a good five-thousandths of an inch, don't you?

A. No, I wouldn't specify what it was. I know there is clearance, and a very designated clearance, but I wouldn't say for a fact that it is five-thousandths.

XQ. 185. That clearance is sufficient to prevent the head from binding or sticking in the nut, isn't it, even without the sleeve head angle?

A. Yes. Now, I'm not sure whether these sleeves that you are speaking about are the ones that I have been associated with—whether they are prior to the dual angle or the single angle; but I do know that they should rotate freely within the nut. The sleeve should rotate freely within the nut. There should be clearance between the sleeve and [51] the nut.

XQ. 186. You mentioned, Mr. Clark, that if the flare, I believe you said, on the tube were scored, it would be a potential failure; is that right?

A. That's correct.

(Deposition of William D. Clark.)

XQ. 187. Would a scoring of the sleeve likewise be a potential failure?

A. A scoring of the sleeve internally would, in turn, on installation score your tubing and would also give you the same potential failure.

XQ. 188. How many failures were brought to your attention resulting from scoring at that time?

A. I think there are about seven of these tube flare failures which were caused by scoring. Now, of that there were, I would say, four or five due to poor installation, due to over-torquing of the nut, thereby squeezing the flare and scoring.

XQ. 189. Are you referring now to all of your experience in the reception of reports on failures?

A. These are, as far as I can remember, the official failure reports, yes.

XQ. 190. You referred also, I believe, Mr. Clark, to the fact that similar types of AN fittings are used on oxygen lines? [52]

A. That's correct.

XQ. 191. Are the fittings used on oxygen lines modified in any way different from the AN fittings which were used on hydraulic lines?

A. No. We used the same fitting.

XQ. 192. I believe, Mr. Clark, that you made the statement that the sleeve head angle, as designated on Plaintiff's Exhibit 2, the angle on the outside of the head of the sleeve, was necessary in order for that fitting to be a good fitting?

A. I believe it is.

XQ. 193. And do you know that to be true of your own personal experience?

(Deposition of William D. Clark.)

A. At one time we had fittings, at the very beginning of my experience in the laboratory, where we were getting constant galling or scoring on tube flares, and we sent those sleeves, or a sample of the sleeves, to our inspection laboratory with a drawing as shown in the AN specification for tube sleeves. They came back and said that these sleeves were not manufactured in accordance with specifications; and the discrepancy on those particular sleeves—I don't know who they were manufactured by—but the sleeve had a constant diameter from the toe of the sleeve to the shoulder of the sleeve; and the sleeves were all rejected and there was a big to-do about it out there, because we [53] were in production. We had quite a job getting an order of sleeves in there to replace them. The sleeves that we did get were to specification, and that seemed to solve our problem. However, with the new sleeves we didn't have the type of failure that we had started to experience.

XQ. 194. Do you recall when that was?

A. I think that was when I was in the laboratory the latter part of '41, I believe.

XQ. 195. Is that report still available?

A. That I couldn't say—whether it is or not.

XQ. 196. Who would know whether it is available or not?

A. Well, possibly the inspection laboratory or the purchasing department about that time.

XQ. 197. Who was head of the inspection laboratory at that time?

(Deposition of William D. Clark.)

A. There was a fellow—offhand, I can't say. I can't remember back as far as personnel. They changed rather rapidly at the time.

XQ. 198. Was that a report that came to your department at that time?

A. I know that I was one of the original ones to crab that, because we started to run into trouble in the laboratory.

XQ. 199. That trouble happened in connection with installations [54] on what airplane?

A. On the P-47.

XQ. 200. Now, the report on that, in addition to showing, as you say, an absence of a sleeve head angle, did that also show the clearance between the exterior of the sleeve and the interior of the nut?

A. I don't know whether they sectioned the nut or not.

XQ. 201. You don't know, then, whether there was insufficient clearance or not?

A. That's correct. The trouble we were having was with the sleeve, and that's what we had inspected—the sleeves—as far as I know.

XQ. 202. So far as you know, then, isn't it true that the absence of clearance may have caused the sticking just as much as the absence of the sleeve head angle?

A. It is possible that the over-all diameter might have been too great, as well as the lack of a sleeve angle, because at that time I know we were having a great deal of trouble with the sleeve sticking in

(Deposition of William D. Clark.)

the nut. And in some cases we could get the sleeve into the nut, but we couldn't get it out.

XQ. 203. Do you recall whether they were the AC-811 Series?

A. They were the AC-811 Series at that time, yes. [55]

XQ. 204. Among these UR reports, Mr. Clark, that came your way, as you said, from both the domestic and foreign fields, were they reports relative to currently produced planes or did they also include reports of planes produced some time ago?

A. Well, those from overseas would be on ships that had been produced probably four or five months——

XQ. 205. Did any of the reports include reports on ships produced, let us say, prior to 1941?

A. Yes, I would say so.

XQ. 206. Do you recall what kind of fittings those reports included? Were they AC-811?

A. They would be the AC-811, yes.

XQ. 207. Were any of the reports on planes which were produced, let us say, prior to 1938, included?

A. No. When I was in there there were very few reports on planes produced prior to 1938 that I knew of at all. I was concerned with the 47 practically entirely.

Mr. Freeman: That is the P-47?

The Witness: The P-47.

XQ. 208. Referring back once again, Mr. Clark, to the couplings of the sort illustrated in Plaintiff's

(Deposition of William D. Clark.)

Exhibit 2, which include a sleeve head angle—and I would like to refer you once again to your remark that the presence of a sleeve [56] head angle is essential, or, at least, helpful, in preventing scoring and galling of the surfaces between the nut and the head of the sleeve. In making that statement, Mr. Clark, are you drawing any comparison between the fitting of the sort illustrated on Plaintiff's Exhibit 2 and some other type or variety of the three-piece coupling?

A. We had in the laboratory, when I first went in there, some fittings of unknown design and unknown manufacture, which had been used on previous aircraft. I believe they are the old automobile-type fitting.

XQ. 209. Were they a sleeve three-piece fitting?

A. Yes, they were a three-piece fitting. I believe they were an internal flare—I believe they called them. And once those were assembled and disassembled, there was always a presence of scoring of the internal flare on the tubing; and when that fitting was installed it was noticeable that the sleeve would rotate. There was a brass fitting—an old-type fitting. I still don't know who manufactured it; but we laid the failures, or the scoring of the tube flare, to the fact that the sleeve did rotate with the nut. It fitted very tightly, and there was no room for expansion of the sleeve, and torquing the nut was very important. As soon as the sleeves were seated against the flare, you could

(Deposition of William D. Clark.)

only take another eighth of a turn on your wrench or you [57] would practically cut your flare off with your sleeve. And that's what I based my primary reason of having clearance between the nut and the sleeve upon; and, secondly, it seems apparent to me, having used them, that a thinner section at the bottom, from practical experience of using the fitting, allowing the bottom to spread or flex, is desirable rather than a straight circumference.

XQ. 210. So far as you know, that might have been a Parker fitting; is that right?

A. As far as I know, it might have been. It might be Weatherhead's. It may have been anybody's.

XQ. 211. Now, you know, do you not, from your personal experience which you have just referred to, that even in the present AN standard fitting the base of the head adjacent to the contact of the sleeve shoulder and the nut shoulder expands as well as the toe end of this sleeve? That's true, isn't it? A. I believe it is.

XQ. 212. And it is even true, is it not, that the sleeve portion of the diminished diameter also expands; does it not? A. I believe that's true.

XQ. 213. Mr. Clark, back there in about 1939 or so, at the time that you mentioned first having experience with three-piece fittings, you saw, did you not, some AC-811 Series [58] fittings which did not have the sleeve head angle on them?

A. Yes.

(Deposition of William D. Clark.)

XQ. 214. And they worked all right, didn't they?

A. Yes. That was changed, though, I believe, right after I came——

XQ. 215. If you will just answer the question, Mr. Clark. A. O.K., all right.

XQ. 216. Now, Mr. Clark, with respect to Plaintiff's Exhibit 8 in the Cleveland deposition, you made some reference to hairline contact. Is there hairline contact anywhere between the parts of the sleeve illustrated on Plaintiff's Exhibit 8?

A. Well, as shown installed, there is less surface engagement than there was on Exhibit 2; but I wouldn't say that's hairline engagement. By "hairline engagement," I mean by each tool flat surface.

XQ. 217. In Plaintiff's Exhibit 2, bearing reference to the part designated, the 33 degree angle, by the legend there shown—— A. Yes.

XQ. ——is the contact between that portion and the exterior of the sleeve a line contact?

A. No, not in the sense in which I stated it, no, sir. [59]

XQ. 218. That is a surface contact, is it not?

A. It's a surface contact, yes.

Mr. Beehler: No further questions.

Mr. Freeman: No redirect.

[To the Witness]: I am going to ask you, Mr. Clark, whether you will waive the reading of your testimony and your signature to such testimony. I

(Deposition of William D. Clark.)

know it is agreeable to Mr. Beehler and it is agreeable to us.

[To Counsel]: That is agreeable, Mr. Beehler, is it not?

Mr. Beehler: It is satisfactory.

The Witness: Yes.

Mr. Freeman: Thank you, sir.

(Witness excused.)

SIGNATURE WAIVED.

(Whereupon, at 12:20 p.m., a luncheon recess was taken until 2:30 p.m.) [60]

Afternoon Session

EDWARD M. GREER

having been first duly sworn by Irwin T. Shaw, the notary public herein, testified as follows:

Direct Examination

By Mr. Freeman:

Q. 1. Will you please state your full name?

A. Edward M. Greer.

Q. 2. And where do you reside?

A. 634 Adams Avenue, in West Hempstead, Long Island.

Q. 3. And what is your business, Mr. Greer, at the present time?

A. Manufacturer of aircraft testing machinery and industrial hydraulic components.

Q. 4. How long have you been in that business?

(Deposition of Edward M. Greer.)

A. Since 1943—the early part; January of '43.

Q. 5. In what capacity are you associated with the company that manufactures hydraulic testing equipment?

A. I'm president and chief engineer.

Q. 6. Has that been your connection ever since the inception of the company in 1943? A. Yes.

Q. 7. Now, you said you manufactured testing equipment [61] and component parts thereof?

A. That's right.

Q. 8. Where is the testing equipment that you manufacture used?

A. It is used throughout the aircraft industry of the whole world—that is, those countries that are friendly to us, where our Government will allow us to sell these testing machines.

Q. 9. By "friendly to us," you had reference to friendly nations to the United States?

A. Yes, of course.

Q. 10. And the testing equipment is directed primarily to hydraulics, or for use in connection with hydraulics?

A. Well, 90 per cent of our testing machinery employs fluid dynamics, even though the testing machinery tests electrical equipment that is hydraulically driven. We are specialists in hydraulics. That's why we have the name Greer Hydraulics, Inc.

Q. 11. Do you mind giving us the names of some of the larger aircraft manufacturers that use your equipment for testing purposes?

(Deposition of Edward M. Greer.)

A. Yes. Well, we can give you Douglas Aircraft, Lockheed, Boeing—by the way, we have agreements with Boeing where we manufacture machines of their design for sale to the [62] industry. That is also true with Consolidated Vultee, both in Fort Worth and in San Diego; also Republic; Grumman; Chance-Vought; Hamilton Standard Propeller Division of United Aircraft Corporation—they are very large Navy airplane manufacturers—the Wright Aeronautical Corporation; the Pratt-Whitney Company; the General Electric Company; and their Jet Turbine Division. Have I left anybody out that makes airplane components? If I have, they should be included. I can hit the highlights. There is Allison, and their Jet Turbine Division——

Q. 12. That's a division of General Motors?

A. General Motors. Northrup, North American, the Army and the Navy, of course.

Do you want some of the foreign——

Q. 13. No.

A. How about the air lines? Do you want the air lines?

Q. 14. I was just going to ask you whether or not your equipment is used for original or initial installations or initial manufacture of planes, and is it likewise used in connection with maintenance of airplanes.

A. It is used in both. Actually, our equipment is used in three categories: one, in the research and development of aircraft and aircraft components;

(Deposition of Edward M. Greer.)

inspection and testing of aircraft and aircraft components by the manufacturer [63] of the airplane, and by the overhaul and maintenance facilities of aircraft—whether they be Government, private or air line.

Q. 15. So you sell testing equipment to both the air frame or airplane manufacturers, as well as to the air lines?

A. And as well as the component manufacturers.

Q. 16. What has been your background with respect to hydraulics generally?

A. Well, I started to work in hydraulics in 1934 and have been totally engrossed in that field ever since. That's been almost 100 per cent activity since 1934 with respect to aircraft.

Q. 17. Of what school are you a graduate?

A. The University of Detroit in Detroit, Michigan.

Q. 18. And what degree?

A. A B.S. in Aeronautical Engineering.

Q. 19. And you said that you started the Greer Hydraulics along in 1943? A. Yes.

Q. 20. Can you give me briefly some of the companies that you have been connected with from the time you left school in 1934 up until 1943?

A. After I left school I went to work for Vickers, Inc., in Detroit. [64]

Q. 21. Was that in connection with hydraulics?

A. They are the largest manufacturer of hydraulic equipment in the world, and the foremost, recognized as such by the whole industry—both

(Deposition of Edward M. Greer.)

industrial hydraulics and aircraft. I imagine that they sell 80 per cent of the aircraft hydraulic components in the United States, anyway. I was with them a couple of years; and I went down to Douglas Aircraft and worked at Douglas as a hydraulic engineer for a little more than a year.

Q. 22. Was that out at Santa Monica?

A. That's out at Santa Monica. Then I came east and went to work for Air Associates who, at the time, were located at Roosevelt Field out here at Mineola or Garden City.

Q. 23. Long Island, New York?

A. Long Island.

The activity in hydraulics, when I came out here, was almost negligible in the aircraft industry. And my reason for coming out was to develop the industry generally. I can't give you the facts and the background behind that, but it wasn't entirely by choice. Needless to say, I became a consultant for the Navy Department very soon after that. And we designed hydraulic components for aircraft from scratch—that is, starting with nothing except the background that I [65] had.

Our activity at first was confined to all Naval aircraft manufacturers, Brewster being the first one. We designed a whole hydraulic system for them. It wasn't just a matter of components, but we actually laid out the airplane and its system; and their engineers were put under my direction; and I trained their group.

Q. 24. Now, when you said you came out here,

(Deposition of Edward M. Greer.)

did you refer to your moving from the west to the east coast?

A. That's right—to the east coast.

Q. 25. Were you ever connected with Republic Aviation Corporation?

A. Well, I would like to give you that experience as we went along.

Q. 26. Go right ahead; I'm sorry.

A. Well, at Brewster I developed a hydraulic group who took over the activity there. And then, as soon as we got them going, I started with Grumman who had no hydraulic activity, and we set up a hydraulic engineering group there, and trained their men. I can give you the names of these men. They are still strong men in their companies—that were trained under my direction, such as Donald Lane, at Grumman; and a fellow by the name of Zucker at Brewster (which is not in existence any longer, so it doesn't matter). [66]

Then we started work with Chance-Vought (also Naval activity); then with Seversky who later became Republic Aviation Company. And it was at Seversky that I met Harry Marx who, soon after my meeting with him, became an officer in the Navy Department and was put in charge of hydraulics for the Navy. It was the first time the Navy Department had an activity set up as a hydraulic activity. That was about in 1942, I would say, or '41; I'm not sure of the exact dates.

Later on, after, I would say, 1942, with an associate I started a company which is now known as

(Deposition of Edward M. Greer.)

Electrol, Inc., up in Kingston, New York, to manufacture hydraulic equipment. Our initial work was with Grumman. There, again, Grumman engineers worked in our office on the airplane system. We started to do some work for Republic who, at that time, were solely devoted to Army aircraft.

I left Electrol under circumstances that are not important to this discussion. We had an awful lot of work with Republic who weren't in a position to do anything themselves; and, solely to keep them going, I joined them for a period of three months in order to set up a group of hydraulic engineers and experts, and redesigned their airplane hydraulic system. At that time I was doing a considerable amount of consulting work, which led me into the Simmond's Air Accessories Company where I was engineer manager. [67]

I started a hydraulic activity there that expanded very nicely; I was there until 1943 when I decided I would like to start making some money for Ed Greer.

Q. 27. Are you familiar with the Parker-type fittings? A. Oh, yes.

Q. 28. Now, in the testing equipment that you manufacture and sell to the air-frame manufacturers, the air lines, do you have occasion to use tubes and tube fittings in connection with testing equipment before it actually goes out into the field?

A. Yes, of course.

Q. 29. And have you personally, in the years

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of your experience in the hydraulic field, had occasion to use Parker-type fittings?

A. I have been using Parker-type fittings since 1933 or 1934.

Q. 30. That was right from the start?

A. Yes. Now, I would like to make a point.

Q. 31. Go ahead.

A. Not Parker-type, but Parker fittings. I don't know what you are referring to by "Parker-type fittings." I know of one fitting there.

Q. 32. Are you familiar with the AC-811 term?

A. Oh, yes. [68]

Q. 33. And is that one of the types of fittings that you used? A. Oh, yes.

Q. 34. And are you familiar with the AN fitting?

A. Yes.

Q. 35. Is that one of the fittings that you used?

A. That's right.

Q. 36. And as manufactured by Parker Appliance? A. Yes.

Q. 37. In the testing equipment that you manufacture are the fittings or the tube couplings used put under any pressure, or extreme pressures?

A. Oh, yes, they are generally put under pressure to their maximum designed loading as to the specifications of the manufacture. You see, in testing machinery we go beyond the aircraft pressures because we are making the gauge for testing the aircraft components.

Q. 38. And do you simulate as much as you can the actual uses to which your testing equipment is

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going to be put in the field in your own plant before they go out?

A. Right to the requirements, we simulate it completely.

Q. 39. Do you have occasion to use and re-use the tube fittings? A. Oh, surely. [69]

Q. 40. And by "tube fittings" you and I are both talking about what we call "tube flares"; is that right?

A. Yes. Well, your question needs a broad answer. We find it necessary to couple and uncouple all types of fittings to make changes under test, because our design of the test machine generally is not finished until after the machine has undergone the first test, and we find it necessary to change and revise simply because in testing machinery work you cannot, as in aircraft, in most cases, set up your system on the prototype and say, "That's it." In aircraft work, we always have to reroute lines from prototype—reroute hydraulic lines.

Q. 41. But you actually test hydraulic lines with your testing equipment before it goes out?

A. Oh, yes.

Q. 42. And in such testing you use what we call "flared tube couplings"?

A. Not exclusively.

Q. 43. But you do test flare tube couplings?

A. That's right.

Q. 44. Now, then, when you tell us that your experience has gone back for a good many years in hydraulics, that experience has been both of the

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engineering and research type as well as the actual and practical type? [70]

A. That's right. In the early days of hydraulics, which is only a few years ago, it was necessary for those of us who knew the field to actually make the initial installations as mechanics; and, oh, as little back as 1942, the engineers found it necessary to install a great many of the hydraulic components themselves, to spot them, and show the mechanics how to use the wrenches and the fittings. And that was prevalent until the time the torque wrenches became available. That was due almost entirely to the fact that you had new personnel coming in all the time—very poor mechanics, and embryo mechanics, I would say, who had become proficient only as of a recent date as a result of the war.

Q. 45. I hand you a drawing which has been marked Plaintiff's Exhibit No. 2 (Amon deposition), and will ask you to look at the drawing and the nomenclature thereon, and ask you if you recognize that as a Parker-type fitting or the Parker fitting that you purchased from Parker and used.

A. I recognize it as the Parker plant fitting.

Q. 46. Now, you have actually used the fittings of the kind exemplified in Plaintiff's Exhibit No. 2?

A. Yes.

Q. 47. You note that there is a statement or term upon Plaintiff's Exhibit No. 2—"sleeve head angle"? A. Yes. [71]

Q. 48. Are you familiar with that angle?

A. Yes.

(Deposition of Edward M. Greer.)

Q. 49. Or the relationship of the sleeve with respect to the nut? A. Yes, I am.

Q. 50. Do you know what it does or its purpose or its function? A. Yes.

Q. 51. Will you tell us?

A. It's the clearance allowed for the possibility of spreading of the sleeve as a result of torquing down on the nut, allowing a condition where binding wouldn't occur.

Q. 52. In other words, the toe of the sleeve head may bow outwardly or spring outwardly?

A. It will bow outwardly.

Q. 53. That is true when the nut is brought up to proper torque?

A. That's right. I would say it goes beyond that. The mechanic in the field, especially on maintenance work, doesn't know what proper torque is, and will overload them; and, in many cases, actually distort the sleeve, and it gives him a little opportunity or some opportunity of re-using the thing without scoring up the fitting.

Q. 54. Is there anything wrong with scoring up the fitting [72] (using your own terminology)?

A. Oh, sure.

Q. 54. What happens when a fitting is scored up?

A. Well, it's a point where a fracture can start and will start. It's a point where leakage will definitely start if the scoring is on the wrong side; and certainly it will start a point of corrosion.

Q. 55. When you say scoring is a point where a fracture may start, is it correct for me to say that

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that is a possible hazard? A. Oh, definitely.

Q. 56. And undesirable?

A. Oh, sure. The fact of the matter is that generally in the better aircraft plants good practice demands that a scored tube (regardless of whether it is badly scored or just scratched) be not permitted to be used on the aircraft.

Q. 57. Because of the great hazard involved?

A. Yes, it's considered a great hazard.

Q. 58. Now, before we go further with——

A. In our plant we have careful inspection against scoring or scored faces, and so forth.

Q. 59. And the likelihood of scoring, when the fitting is put on or being installed, is that such scoring likewise will bring about a potential hazard? [73]

A. Will you restate that again? I want to follow you.

(Reporter reads last question as recorded.)

A. Yes; the same question was asked before. That is why I wanted it re-read.

Q. 60. It doesn't make much difference when the scoring takes place; it's bad; is that correct?

A. It's bad at any time. I would like to point out here that where the fittings are used with fuels, care has to be taken to see that the finish is protected. That's why we have this anodizing; so that we do not have a potential place for corrosion; and some of our high octane fluids will start a very, very quick corrosion condition which can cause failure in fire.

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Q. 61. That is, if you have a scored part that is likely to bring about leakage?

A. Yes. But I make the greater point in the fact that you can have corrosion, rusting, as we call it in ferrous metal terminology, eating away the metal, with the possibility of a fracture occurring as a result of pressures developing the line in excess of their design, which happens very often, which would not only cause a leak, but a real blow-off of the line with a real fire hazard.

It has happened in the aircraft industry from time [74] to time as a result of corrosion. It is for that reason, for instance, that the specifications of the AN Board are so rigid on finish.

Q. 62. Will you tell us here briefly what is meant by hydraulics in connection with the aircraft industry?

A. Well, it's a transmission mechanism, to transmit work from one place to another.

Q. 63. And in that transmission of work from one place to another, tubes interconnect the power at one place to the work to be done at another place?

A. That's right. Actually, a good definition of hydraulics would be a mechanism for the transmittal of energy by fluids through pipes. That is a recognized definition.

Q. 64. And when you transmit energy to pipes——

A. Fluid through pipes.

Q. 65. ——that, then, necessitates the tube or pipe being connected to the power means at one end and the operating means at the other end?

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A. That's right.

Q. 66. And when you use the flared ends on the tubes, is it true that the Parker-type fittings are used to make the inter-connection between the tube and the motivating means at one end, and the operating means at the other end?

A. In the airplane industry, it is almost [75] exclusive.

Q. 67. And the power transmitted from the power mechanism over to the work to be done comes under the general heading of hydraulics?

A. That's right.

Q. 68. Now, in the aircraft industry can you give us a few of the places where hydraulics are employed for operating mechanisms of the aircraft?

A. Well, such as landing gear, wing flaps—is that what you mean?

Q. 69. Yes.

A. Cowl flaps, landing gear doors, bomb doors, gun controls, gun turrets, windshield wipers, shimmy dampers, steering mechanisms. Do you want to go on there? There are a great many of them.

Q. 70. These items that you have given us—you know that from your own personal experience?

A. Yes.

Q. 71. And you have actually seen them in operation?

A. I have actually designed them in aircraft and have tested them in operation.

Q. 72. And actually installed units on aircraft?

A. Yes.

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Q. 73. Or supervised the installation?

A. Supervised and installed, both. [76]

Q. 74. So that, in addition to the testing equipment before the units are put on a plane, you likewise have used fittings in connection with actual installations?

A. On airplanes, oh, yes. My use of tube couplings of this kind has been much heavier in the airplane industry than in the test machinery field.

Q. 75. You mentioned a moment ago, coming back to the fitting, that it is desirable not to have the sleeve bite into or engage the nut? A. Yes.

Q. 76. What is the hazard if in fact the sleeve does gouge or project into the nut?

A. Oh, there are very many detrimental effects of a condition like that. First of all, the mechanic putting the nut down may stop before he has seated the tube, because in many cases he works totally by feel, and he has an exaggerated feel condition by the torque increment that is a result of the sleeve and the nut rubbing against each other. That would result in leakage in the system if a careful test wasn't made afterwards.

The second condition, of course, is that in scoring, you have developed a weak point. These tube fittings are made of very light ductile material, and because of it being an aircraft component, weight and material is held at a minimum. [77] The design is such that the factors of safety are rather narrow; and there is no room for a potential point of breakage.

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In the design of the fitting itself nothing has been allowed, from a safety standpoint, to start a fracture. We all recognize that in any piece of material, if you have a sharp break anywhere, whether it be small or large, a load on that material will cause the break at the point where you have a sharp cut or abrasion. That's where the break will start.

Q. 77. Now, if the nut and sleeve are jammed or engaged, what happens when you remove the nut or attempt to disassemble the assembly?

A. If you are jammed?

Q. 78. Yes.

A. You can pull the tube right off in some cases and twist the tube, because you won't only jam up against the nut, but you may jam right up against the tube too. I have seen occasions where, by trying to remove the sleeve under those conditions, you actually twist the tube, especially if the tube is made of aluminum alloys—as they are in aircraft—on the quarter-inch sizes, for instance. That's a condition that you run into very, very often.

Q. 79. In other words, actual twisting of the tube puts [78] an undue tension or strain on the tube?

A. It puts a torsional load on the tube and will cause it to twist.

Q. 80. And is that likewise a potential hazard?

A. You have to throw the tube away.

Q. 81. And if you don't throw the tube away,

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but you put the torsional tension on the tube, is that undesirable from a safety factor?

A. Well, the chances are you will never get it to hold fluids under pressure without leaking. And if you do get it to hold pressure, the chances are you will have to pick the pieces of the airplane up some place.

Q. 82. In other words, it's hazardous?

A. It's more than hazardous; it's suicide; it's a critical point.

Q. 83. What happens if the tube doesn't twist, but the sleeve and the nut rotate on the tube?

A. You will score the top end of the tube.

Q. 84. And by the "top end"—

A. That is the top of the flare, as I pointed out here. You will either score the tube or you will score the sleeve, and you will never be able to make a tight seal as a result of it. You've got an area sealed here (indicating), and you have to have a smooth point here all the way through. You [79] are depending upon a metal-to-metal fit.

Q. 85. When you used the term "top of the sleeve," you were—

A. No. I say the top of the tube, the top of the flare, or the bottom of the sleeve. If you have a score in here (indicating)—

Q. 86. Indicating the contact between the inside of the sleeve and the outside of the flare.

A. —you have leakage, because you are dependent on a smooth metal-to-metal fit at all times. If it weren't for that condition, you wouldn't need

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a sleeve at all. The only reason you've got a sleeve is to prevent that scoring; otherwise, you could come right down on the thing.

Q. 87. In other words, the scoring or improper interconnection between the sleeve and the flare would, in fact, bring about leakage between the tube and the body of the coupling?

A. You destroy the fitting beyond its use.

Q. 88. You would just have a bad fitting?

A. Yes. It's not acceptable for use. You couldn't hold pressure.

Q. 89. In other words, it would not function properly?

A. That's right. And if you do get it to function by over-loading it, well, it's only good until somebody takes it apart again, and then it has got to be thrown away [80] definitely. But it's a dangerous thing.

Q. 90. If it is deformed or injured because of improper interconnection——

A. The only way you can get a seal on that is to change the physical dimensions of the fitting by brute force, to get it to seal.

Q. 91. And that is not desirable?

A. I should say not.

Q. 92. Now, you explained the angle on the outer wall of the sleeve and that the parts expanded as the nut was brought home or tightened; is that correct? A. Yes.

Q. 93. Now, does the application of the expansion of those ends of the tube tend to prevent the

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parts from becoming unloosened due to vibration?

A. Yes. You have a hoop stress condition developed on there, an actual gripping all the way around the tube as a result of the dynamic forces in the material. You have a condition where this flared tube and the nut can be likened to a spring, with an inward component of load, which acts not only as a seal, but as a mechanism for keeping the parts together.

Q. 94. Somewhat like a lock washer?

A. As a lock nut. [81]

Q. 95. A lock nut? A. A lock washer.

Q. 96. And is that brought about by hoop stress or hoop tension? I think that's the term.

A. We call it hoop stress.

Q. 97. And you have heard that term used——

A. Well, the actual technical term of that is known as Barlow's Law which states that the stress on a material is equal to the pressure times the diameter divided by two times the wall thickness. And that means that the greater the diameter, the greater stress the material will take. And as you can see as this flare comes out, you have a higher stress point at the nose than you have in the back. So the stress is a function of diameter over thickness, neglecting all this other stuff in here which isn't important (indicating).

You can say that the scientific or physical term, as known to students of physics even in the high schools, is that stress is a function of diameter over wall thickness. That's hoop stress.

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Q. 98. So that the application of hoop stress is desirable in the fitting of the type that we have here exemplified by Plaintiff's Exhibits 2 and 8?

A. Well, it's the only way of doing it without adding [82] other features. There are fittings, to my knowledge, that are satisfactory that do not use the hoop stress feature here, but they have other mechanisms of one kind or another to do the same thing. Generally, that means more complications.

Q. 99. Now, is there any advantage or desirable feature or function in having substantial engagement between the sleeve shoulder and the nut shoulder?

A. Oh, yes.

Q. 100. What is that? Will you please explain?

A. The strength of the fitting is dependent entirely on that shoulder. The load, being a function of the area under contact, the greater the area the less load required by the nut to hold. In other words, if this area were shortened substantially (indicating), you would have a low factor holding it down, but you would have a very, very small engagement which would tend to pull out.

Q. 101. It is true that in a fitting of the Parker type, as here exemplified, the toe or the nose of the sleeve grows outwardly a greater distance than the bowing out at the hole or sleeve shoulder?

A. I guess it would. I've never measured it, but I'm sure it would. They would have to, because you're working on a lever principle there. [83]

Q. 102. Now, calling your attention to Plaintiff's Exhibit No. 8 and the differential angle or the two

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angles on the sleeve, with respect to the outer wall of the flare, is it true that as the nut is tightened or brought home, or the maximum torque placed thereon, the space in between the sleeve and the outer wall of the flare will become less and less as the torque increases?

A. Yes. This, by the way, is recognized as a superior fitting from a design standpoint than this one (indicating).

Q. 103. In other words, the one that you referred to as the superior type——

A. We have initial toe contact with the sleeve because there you actually have a designed dynamic load with sufficient give to make full contact of the fitting in a rolling motion rather than trying to squeeze the whole face of the flare on the tube.

(Discussion off the record.)

A. (Continuing): It prevents the possibility in soft tubing of actually cutting off the flare as a result of extra highwrench loading in repeated assembly and disassembly which in many cases causes the flare on the tube to diminish in size in relationship to the amount of times that it is wrenched up and down. When I say "wrenched," I mean using the wrench.

Mr. Freeman: That's all, you may cross-examine, Mr. [84] Beehler.

Mr. Beehler: Thank you.

(Deposition of Edward M. Greer.)

Cross-Examination

By Mr. Beehler:

XQ. 104. Mr. Greer, you said, I believe, that you designed a hydraulic system for the Brewster Aircraft plane? A. Yes.

XQ. 105. Can you give us the date of that?

A. I think it was '39. Yes, it was '39 and '40.

XQ. 106. Now, among these hydraulic groups that you set up for the various aircraft companies, there was one you set up for Republic?

A. Yes.

XQ. 107. Was Mr. Clark, who testified here today, among that group?

A. No, he wasn't in the hydraulic group at the time, but he was employed by Republic. I don't remember what his function was at the time, although he worked with our hydraulic people as a coordinator with installations, I believe it was.

XQ. 108. Were you one of the owners and originators of Electrol or were you called in as an engineer?

A. I was one of the originators but not one of the owners I found out later. That's why I left.

(Discussion off the record.) [85]

XQ. 109. I believe you said, Mr. Greer, that you were familiar with Parker fittings. A. Yes.

XQ. 110. And you distinguished that from the Parker-type fittings? A. Yes.

XQ. 111. As early as 1933 or 1934?

A. That's right. We used them at Vickers in

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Detroit on commercial and naval hydraulic installations.

XQ. 112. The Parker fittings which you knew at that time were three-piece fittings? A. Yes.

XQ. 113. That is, the fitting with the sleeve in it? A. That's right.

XQ. 114. With respect to the sleeve portion of the fittings, which you used in 1933 or 1934, will you refer on Plaintiff's Exhibit 2 to the portion of the sleeve head labeled "sleeve head angle," and tell us did the fittings—

A. Which one of these are you referring to—Exhibit 2?

XQ. 115. No. 2.

A. The sleeve head angle, yes. You are referring to that?

XQ. 116. Yes. Now, the Parker fitting which you used in [86] 1933 or 1934 had a sleeve head angle on it?

A. I don't remember it having it.

XQ. 117. You don't remember whether it did or not, or do you say that it did not?

A. I don't remember it having it. I am inclined to think that it did not, but I can't make a definite statement on that. It was a long time ago.

XQ. 118. You can't be sure whether it did or did not?

A. I can't be sure whether it did or did not, but I would venture to say that it did not.

XQ. 119. Do you remember, with respect to the same sleeve head and sleeve in 1933 or 1934, whether

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there was a clearance between the exterior of the sleeve head and the interior of the nut?

A. Yes, there was some.

XQ. 120. And do you recall whether or not at that time there was difficulty with the sleeves sticking in the nut? A. Yes, there was.

XQ. 121. Do you recall any specific instance?

A. No. I know we had a considerable amount of difficulty with fittings generally.

XQ. 122. Do you recall what was done to alleviate that difficulty? A. No. [87]

XQ. 123. Do you recall if anything was done to alleviate that difficulty?

A. Not until after the aircraft activity started, when the aircraft manufacturers, as a requirement of light weight and high stresses, demanded that something be done to clarify the whole fitting business as a whole, when radio design changes were attempted and standardizations were developed.

XQ. 124. You said, I believe, that along about that period, 1933 and 1934, in your use of Parker fittings the sleeve head expanded into the nut when the sleeve was made up; that's correct, isn't it?

A. Will you state that again? I don't follow that. In 1933?

XQ. 125. 1933 or 1934—that period that you mentioned, when you first began using Parker fittings—— A. Yes.

XQ. ——you stated, I believe, that when the fitting is made up, pulled together, the head of the

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sleeve expands outwardly into the interior of the nut?

A. No. I said that as a general statement of the fitting, not as a statement as to the time.

XQ. 126. Then let me ask you this: Did the fittings which you used in '33 or '34 expand that way with respect to the [88] sleeve head?

A. I don't know. Our difficulties were encountered with the shearing off actually of the top of the sleeves. There was our weak point—not the sleeves, but the shearing off of the nut. It was just torquing down until it was cut off. And that was a matter of lack of technique or knowledge more than anything else.

XQ. 127. You are speaking now of the part labeled "nut shoulder" on Plaintiff's Exhibit 2?

A. Yes, that's right. And that may have been due to the binding action of the sleeve and the nut, or to the fact that improper wrench loads were used.

XQ. 128. It is true, is it not, Mr. Greer, that the Parker fittings which you used in about 1934 had a nut shoulder which was tilted at a slight angle rather than being straight across; isn't that true?

A. Yes, I believe that's true, now that you mention it.

XQ. 129. And it was the tilt of that angle, I assume, that caused the shearing off or damaging of the nut shoulder?

A. Oh, I wouldn't say that, no. I don't think that the tilt of the nut, the angle of the nut, would make any contribution to shearing at all.

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XQ. 130. Well, what would you say that it would do if the [89] shoulder on the nut were tilted at an angle, as you say it probably was?

A. I don't think it actually makes a heck of a lot of difference, except to give a longer face of contact. But I would say, speaking purely as an engineer, that the value of that was negligible. I wouldn't give it any value at all.

XQ. 131. Now, with respect to safety factors on a Parker fitting made according to the drawing of Plaintiff's Exhibit 2, for example, there is illustrated contact between a sleeve shoulder and a nut shoulder, as there labeled. Do you have any idea what the safety factor is there in the selected area of surface contact?

A. No. But I could calculate it.

XQ. 132. Could you estimate it or would you need a long calculation to arrive at an answer?

A. I would need some time on it. I would have to know the diameter and the pressures and the materials and the strength of those materials.

XQ. 133. Well, just from pressures which you have used in tests, could you estimate or give us some approximate estimate of the safety factor?

A. I don't think that from an operational standpoint that matters at all. I think your problem of strength there isn't one from operating pressure, but one from mechanically [90] sealing the parts together as a result of improper tools and loads. I think that's the most important factor in a fitting of this kind. I don't think that you would have to

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worry very much if that sleeve had a smaller area, say, half the area, from an operational standpoint.

XQ. 134. The area at the shoulder contact, you mean?

A. At the shoulder. That shoulder contact, I believe, is important only to the mechanical assembly of the parts.

XQ. 135. It's a mechanical thing, then, directed to correct the errors that a mechanic might make if he over-torques?

A. That's right; it's a matter of giving a sufficient amount of work area so that he wouldn't do damage under normal operating loads. And if you ask me to define "normal operating loads," I will tell you I don't know.

XQ. 136. All right, I won't ask you.

A. I would like to bring up this point, though, I think we all understand: that up until about four years ago all mechanics depended on feel more than anything else to tighten up fittings. It was purely a business of knowing in your fingers when to stop. I still do it today. I have occasion to put tubing together, and I did some last Saturday. And I wouldn't trust one of my mechanics to put them together the way I do. Perhaps if I had a boss, he would fire me; but it's a matter of knowing when to stop when you reach a certain [91] load. That's all experience.

XQ. 137. Now, you said, I believe, in your direct examination, that it produces a bad condition if the sleeve gorges into the nut. That's correct?

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A. The sleeve gouging into the nut, oh, yes.

XQ. 138. Suppose the sleeve gouges into the flare; is that a bad condition, too?

A. It's worse.

XQ. 139. Will you refer, please, to Plaintiff's Exhibit 8? A. Yes.

XQ. 140. And I direct your attention particularly to the portion of the sleeve labeled "33 degree angle," and the junction of that with the 18½ degree angle. A. Yes.

XQ. 141. Is it not true when that coupling is coupled up that the sleeve gouges into the flare?

A. No, it doesn't.

XQ. 142. What happens when that particular sleeve is drawn up tight to make a fitting?

A. It slides over. The angles of motion are such that due to the stress developed, the sleeve opens up actually and sits down on the tube flare. I think, if you will examine the flares after the couplings have been put together, you will find that you do not have gouge marks. It has been [92] my experience, under inspection of repeated assembly and disassembly, that we do not gouge the tube or we do not score the face of the sleeve.

XQ. 143. Your last remarks, Mr. Greer, would then apply equally well to aluminum or the copper silicon sleeves?

A. You mean aluminum tubing and copper silicon sleeves?

XQ. 144. Yes.

A. I don't think so. I think with aluminum

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tubing and copper silicon sleeves you may have a condition where you would either score the tube or flatten it out. My experience there is such that I can't speak with authority.

XQ. 145. Would the gouging or scoring in that event improve the seal?

A. No. Scoring or gouging never will improve the seal. The fact of the matter is you won't have a seal.

XQ. 146. Now, you also referred, I believe, Mr. Greer, to the presence of hoop stress as a beneficial factor in the holding of a coupling together to prevent a leak in the coupling of this kind. With respect to the Parker fittings, which you used in or about 1934, was the factor of hoop stress important there, too, in holding the fitting together?

A. It was; but unfortunately it didn't exist to the extent that it does today; and under vibrating conditions [93] the nut would loosen up, and we would have a leak. It was prevalent in those days for mechanics in both the industrial and aircraft fields to inspect periodically and continuously tighten the nuts, the result being that before long they had nothing left to tighten, and it had to be replaced.

XQ. 147. Can you state for the record why the hoop stress in those fittings was not as effective as the hoop stress in the fittings used today?

A. I think it was more a matter of angle loading than anything else.

XQ. 148. Which angle have you reference to?

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A. The loading between the sleeve and the tube itself.

XQ. 149. And is it the interior of the sleeve and the exterior of the tube; is that correct?

A. Yes, it's either that or the fact that we didn't allow enough clearance for the sleeve to come out. I am speaking now, just thinking this thing out. But I would say, to answer your question directly and not from experience, concerning the conditions that existed in the early days of my use of this fitting, we did have a definite condition where the tube nut would loosen off due to vibration. And to answer your last question, as to why that condition existed then and doesn't exist today, I would only have to [94] conjecture. By that I would say that it was due to two things: No. 1, the fact that we did not have a clearance between the sleeve and the nut, and therefore was not able to induce hoop stress into the sleeve——

XQ. 150. Was that equally true of all sizes, as you recall it—the loosening up?

A. My experience in these fittings up to very recently was limited to sizes from the quarter-inch size up to the three-quarters-inch size, and very heavily on the three-eighths and half-inch sizes. We consider that those sizes are small and pretty much equal up to the three-quarters size.

XQ. 151. Does your comment, then, apply to all of the sizes which you knew at that time?

A. Well, no. In trying to recall this thing, I

(Deposition of Edward M. Greer.)

would say that we had more trouble with the smaller sizes.

XQ. 152. Which sizes?

A. The quarter-inch, three-eighths, and half-inch.

XQ. 153. More so than in sizes over half-inch?

A. Yes. That might be due to the fact that manufacturing tolerances in the larger sizes were not enough to give you sufficient clearance to get a stress in there. I don't know. There is also the factor that up until a few years ago we did not know how to flare tubing. I believe [95] all of us understand that. It wasn't until recently that we could make real flares.

XQ. 154. Now, referring again, Mr. Greer, to Plaintiff's Exhibit 8, you said, I believe, that when that nut is drawn up and the fitting closed to complete the seal, the toe of the sleeve head hit first?

A. Yes—contacts first.

XQ. 155. What portion of the sleeve head do you consider the toe?

A. The point of contact between the flare and the sleeve.

XQ. 156. Is that a line contact or a surface contact in Plaintiff's Exhibit 8?

A. Well, that's comparative. As the drawing is shown here in large scale it is shown as an area contact, but I believe in actual scale that would be a line contact. I would say a line contact in this case here would be limited to a thickness of about a thirty-second of an inch. Anything beyond that I would call an area contact.

(Deposition of Edward M. Greer.)

XQ. 157. Does this drawing, as it appears before you, look as though it were not drawn to scale?

A. I would say it is drawn to scale, but it's a very large fitting.

If we could look at an actual drawing of a [96] fitting, then we could make a very definite statement. But we know it is a line seal rather than an area seal in the industry, referring to Parker, of course.

XQ. 158. I see. And a line seal is a better seal than an area seal; is that correct?

A. Always. That's why all valves are made with line seals. By that I mean a differential angle of contact on poppets and seats.

XQ. 159. Mr. Greer, will you lay your pencil on Exhibit 8 at the area where the liquid passes through the fitting?

A. Right through here (indicating).

XQ. 160. Now, will you draw with your pencil the path of a leak out of that fitting?

A. The path of a leak?

XQ. 161. Yes.

A. There are many paths. The first path would be this way (indicating).

XQ. 162. And your pencil traces along between the surfaces of the toe of the body and the inside of the flare on the tubing; is that correct?

A. That's right.

XQ. 163. Will you continue tracing the probable outlet of the leak past the area just mentioned?

(Deposition of Edward M. Greer.)

A. Yes. Either through here (indicating), which is [97] the most logical, or through here (indicating), which is secondary, and very seldom through here (indicating).

XQ. 164. Now, the portion which you indicated as secondary was the portion between the exterior of the head of the sleeve and the interior of the nut; was it not? A. Yes.

XQ. 165. And I believe you said earlier in your testimony that it was desirable not to have the head of the sleeve pressed outwardly into the interior of the nut; is that correct?

A. I don't follow you there. Let's work with a pencil here. Will you illustrate what you mean?

XQ. 166. You stated before, I believe, that one of the virtues of the triple fitting is the fact that the head of the sleeve maintains some springiness and does not fill the interior of the nut?

A. That's right.

XQ. 167. Is that correct?

A. Not as a function of the fitting, but as a function of the assembly of the fitting.

XQ. 168. Well, then, is it not true that there is more likely to be space for the leak to pass outwardly between the head and the nut than it is between the head and the flare? [98]

A. Well, it would make no difference if you allowed two-tenths of a thousandth clearance in here or a tenth of a thousandth or a sixteenth of an inch here (indicating). You would get the same amount

(Deposition of Edward M. Greer.)

of leakage through the fitting. You aren't dependent upon that as a source of the leakage. That's a clearance factor, regardless of whether you design it or not.

XQ. 169. Then, so far as those surfaces are concerned, it makes no difference whether a leak would go through there or not; is that correct?

A. It's not designed for it to be leak-proof, or it is not considered as a leak-proof portion of the fitting.

XQ. 170. Well, then, with respect to a leak between the exterior surface of the flare and the interior surface of the head of the sleeve, if that were leak-proof or insured against leakage, then fluid leaking from the coupling would readily pass around the exterior of the sleeve, would it not?

A. It would. But I don't see where that makes any difference.

XQ. 171. If you had, then——

A. If you had a leak through the flare, between the flare and the body——

XQ. 172. Fine. [99]

A. ——you've got a very bad fitting, in the first place——

XQ. 173. Yes.

A. ——and it should be changed. But suppose you had that leak. The path of leakage, as you are describing it, would carry you between the shoulder of the sleeve and the nut. If that's full of oil under pressure, it would make no difference, providing you

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had an adequate seal between the shoulder of the nut and the shoulder of the sleeve on the top.

XQ. 174. Is the shoulder contact between the sleeve shoulder and the nut shoulder designed for a tight fit—that is, a leak-proof fit?

A. No, I don't know; I don't regard it as such, because you have two rubbing surfaces, and in torquing conditions you are bound to break up any smoothness of surface to prevent leakage. I don't think that that is considered a leak-proof joint from a design standpoint.

XQ. 175. It is true, then, is it not, that the most important surfaces to have leak proof are the surfaces between the body and the interior of the flare on the tube? A. Yes, yes; that's true.

XQ. 176. And it makes no difference at all, so far as leak-proof contact is concerned, whether or not the interior [100] of the head of the sleeve and the exterior of the flare on the tubing are in sealing relationship to each other?

A. Oh, I wouldn't put it entirely that way. It is a secondary seal. I would put it in a second or third class.

XQ. 177. Even if that were a tight seal, it could still leak out past the threads; could it not?

A. It could, but not easily. But you are dependent entirely on the surface between the flare of the coupling and the flare of the tube to do your sealing.

XQ. 178. And when you say "coupling," you refer to the body portion; is that correct?

A. The body, yes. I think that is the correct

(Deposition of Edward M. Greer.)

terminology—to call the body the coupling—isn't it?

XQ. 179. We can say, for consistency, that Plaintiff's Exhibit 8 labeled the body portion—this portion on which I lay my pencil—is the portion you refer to? A. Yes.

Mr. Freeman: And that portion was labeled “body”?

The Witness: Yes.

Mr. Beehler: No further cross——

Mr. Freeman: That is all.

Now, is it agreeable to you, Mr. Greer, that you waive the reading of this and waive your signature to it, if it is likewise agreeable to Mr. Beehler? [101]

The Witness: Yes, surely.

Mr. Freeman: Thank you.

(Witness excused.)

Mr. Freeman: Let the record show that we will resume here at 9:30 tomorrow morning.

(Whereupon, at 4:15 p.m., an adjournment was taken until Wednesday, May 11, 1949, at 9:30 a.m., at the same place.)

SIGNATURE WAIVED. [102]

ROLAND C. BERGH

having been first duly sworn by James W. Maxwell,
the notary public herein, testified as follows:

Direct Examination

By Mr. Freeman:

Q. 1. Will you please give your full name?

A. Roland C. Bergh.

Q. 2. And your residence?

A. 191 Briarwood Crossing, Cedarhurst, New York.

Q. 3. What is your business or by whom are you employed?

A. Republic Aviation Corporation, Farmingdale, New York.

Q. 4. In what capacity are you employed by that company?

A. I am chief staff engineer and am responsible for the supervision of all the mechanical devices that are used in our airplanes, including the engineering aspects and the procurement of all accessories, equipment, and things of that type.

Q. 5. How long have you been with the Republic Aviation Corporation at Farmingdale, Long Island, New York?

A. Since, I think, April, 1935.

Q. 6. And you entered that company's employ as an engineer?

A. That is correct. [104]

Q. 7. What is your educational background, with reference to collegiate training?

A. I graduated from Princeton University in 1927, Department of Physics, and then took a post-graduate course at New York University, Guggen-

(Deposition of Roland C. Bergh.)

heim School of Aeronautics, receiving the degree of Aeronautical Engineer in 1929.

Q. 8. Have you been primarily engaged in engineering work with respect to the engineering field since you graduated in 1929?

A. Yes, sir, exclusively.

Q. 9. Can you give me quickly your connections from the time you left school in 1929 until 1935, when you entered the employ of Republic Aviation Corporation?

A. Yes, I had only one job prior to my employment at Republic Aviation Corporation, and that was at Fleetwings, Incorporated, formerly of Garden City, Long Island, and then they moved to Bristol, Pennsylvania. My position there was, first, just engineer, and finally chief engineer and vice-president, until I left in late 1934.

Q. 10. You said that you were chief staff engineer of Republic Aviation and in charge of procurement or, at least, supervision of all mechanical devices.

A. The engineering aspects of all equipment used in the airplanes. [105]

Q. 11. And does that include fittings for coupling tubes to hydraulic devices used in planes?

A. Yes, it includes all equipment, small hardware and standard parts.

Q. 12. Are you familiar with the Parker 811 fitting or the fitting sometimes called the AN fitting used in planes?

(Deposition of Roland C. Bergh.)

A. Yes, I am very familiar with it, because I have been a member of the Industrial Committee that has dealt at very great length with the aspects of the fluid line fittings and our committee was very helpful in the initial setting up of the so-called AN standard drawings that the Air Force uses for replacing the so-called 811 fitting, which was the Parker fitting.

Q. 13. Is that committee you mentioned called the SAE Committee?

A. Yes, SAE-A3, and that committee's work is, I think, in connection with fluid line fittings and hydraulic hose assembly, as I recall it, and its job was, to a large extent—in fact, I think that for a period of four years during the war it dealt almost exclusively with working the bugs out of the AN standard fluid line fittings.

Q. 14. Can you tell me briefly the function of a tube fitting?

A. The function of the tube fitting is to [106] make a liquid-tight connection between two lines or between—by “line” I mean either a rigid tube or a hose—to make a liquid-tight connection between a line and another line or between a line and a piece of equipment or accessory, and to provide a connection whereby fluid can flow from one place to another, either under low or high pressure, without leaking.

Q. 15. The flare tube fittings include, in addition to the fitting itself, a flare upon the tube; is that correct?

A. That's correct.

(Deposition of Roland C. Bergh.)

Q. 16. And are they sometimes called flare tube fittings?

A. Yes, I think that terminology has been used for a good many years and is popularly accepted throughout the industry, and it also serves the purpose of identifying this type of connection, as compared to one where the tube does not require expansion or flaring to make a connection. There are other fittings on the market now which do not require any prefabrication before the joint is made up.

Q. 17. You said first that a tube fitting was to prevent leakage and provide a liquid-tight joint; is that correct?

A. Yes, to provide a liquid-tight path for the flow of liquid. Of course, the fluid can be either air, gas, oil, gasoline, or anything like that.

Q. 18. Or a vacuum? [107] A. Yes.

Q. 19. And the joint brought about by a coupling or fitting is accomplished by——

A. By making up the sleeve and the nut—let me put it this way: over the tube is slid a nut and sleeve and the tube is then flared, which will prevent the removal of the sleeve and nut, and then the assembly is brought up to a male union or fitting and the nut is tightened against the male union.

Q. 20. Is that male union sometimes referred to as the body? A. Yes, the body of the fitting.

Q. 21. And I take it that the fitting is to provide a mechanical grip for holding the tube mechanically interconnected to the——

A. To the body. I will put it this way: there are

(Deposition of Roland C. Bergh.)

basically two kinds of forces or strains that the assembly is required to take; one is the radial force created by the fluid pressure, and the other is the longitudinal force created by the effective inside diameter of the tube, tending to push it away from the body. This produces another force axially along the tube, tending to create a separation. The fitting serves that dual purpose, and it also of course has other purposes, such as the weight of the assembly, the [108] weight of the line, and so forth, and it has to take vibration, flexing, and a certain amount of mechanical force or weight incidental to assembling the airplane, where mechanics pull on the plumbing a little bit to get it through things and there is a slight flexing of the parts of the assembly.

Q. 22. By the term "plumbing" you have reference to the various tubes and pipes on a plane?

A. Yes, by that I mean all the rigid and flexible lines where they connect either to themselves or to rigid equipment attached to the airplane structure.

Q. 23. Will you give me, just briefly, some of the devices that are operated through the medium of either fluid or air, where the motivating force is at one point and the thing to be operated is in an exposed position where the interconnection is brought about by tubes and couplings of the kind we are here talking about?

A. I would say that there are really two basic functions of a plumbing installation: one, and the most important, obviously, is to transmit power

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from one place to another—and by “power” I mean either a gas or a liquid under pressure and, consequently, to act as a means of conveying a fluid which is used in the engine or the lubricating oil system of the engine.

Q. 24. I hand you a drawing which has been marked [109] Plaintiff's Exhibit No. 2 (Amon deposition) and will ask you to look at the illustration there and state whether you recognize that as an AN fitting.

A. Well, it very closely approximates a picture of a made-up joint or a section through it.

Q. 25. And do you find there the parts legend “Body nut and sleeve”? A. Yes.

Q. 26. What is the relationship of the outside wall of the sleeve within the nut relative to the inner wall of the nut?

A. Well, there are three surfaces, starting from the outer end, as an axial or cylindrical clearance, which has to be of a reasonable amount to allow for machining variations, I should say, between concentrics and between the manufactured nut and the manufactured tube, and **that clearance has to be** there so that the nut can be centered entirely—I mean the tube can be centered, together with the sleeve, entirely upon the angle of connection with the body.

Perhaps I haven't made myself quite clear. What I mean is that in order to get a good fluid-tight joint, which is obviously important, between the inside of the tube and the male end of the body,

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that is the fluid connection that has to be sealed, and that flat surface has to be perfectly concentric in order to get a fluid-tight joint, and that is [110] the reason for the procedure I have just described. Then beyond that is a washer that has a flat surface between the shoulder of the nut and the corresponding shoulder of the sleeve, and the forces in tightening the nut against the body are applied at this surface to the sleeve, which forces the sleeve tightly against the outside flare of the tube.

The width of that shoulder is very important because, if it is too narrow, it can deform either the sleeve shoulder or the nut shoulder. Of course, you want a clearance at the inside diameter of this washer, but you don't want an excessive clearance or you do not have enough biting surface on the shoulder, and, thirdly, you have a more or less cylindrical section between the inside of the nut and the outside of the sleeve. That clearance has to be adequate, to take care of the inherent expansion of the sleeve due to torque tension while the fitting is being made up, or forces due to the inclined plane action tend to expand the sleeve somewhat, and it has been our experience that that clearance has to be a reasonable amount, particularly at the flare end of the cylindrical section of the sleeve, so that once a joint has been made up tightly and is subsequently disassembled, the nut is free to rotate on the sleeve, after the sleeve has been slightly expanded through this action.

The sleeve head angle, as noted here, shows that

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the [111] two surfaces I just mentioned are not exactly parallel, as initially made. We have made some checks on it, which indicate that, once the joint has been made, the sleeve is approaching closely to a true cylinder, after it has been expanded through this tension.

I might say that the question as to whether it is necessary or not can be boiled down pretty much this way, that you could have parallel surfaces on the outside of the sleeve, but it would necessitate, if you maintained the washer contact with the shoulder area, either a weaker nut or a larger diameter hexagonal nut, which in all cases is a six-sided hexagon so that it takes a wrench.

Q. 27. Would it be desirable to use a larger nut?

A. Definitely not. We are interested in keeping the weight down on our fitting assemblies which, I might add, in a modern airplane and even a small airplane, runs into, I think, roughly, somewhere between 500 and 1,000 pounds for similar connections in each plane.

Q. 28. And would it be desirable to make the nut weaker?

A. No. In designing our airplanes we want the following things: First, it has got to work and serve its purpose and, by "work," I mean not only work when you want it to work in the field and under maintenance conditions—that is its first main function. Second, it has got to be of a size so [112] that we can put it in the airplane, and, third, it has

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got to be as light as possible for the required function, and also it must be as cheap as possible. Everything in the airplane has to be weighed on the basis of those four functions.

Q. 29. And has the use of fittings of the kind exemplified by Plaintiff's Exhibit 2 (Amon deposition) served its function and worked satisfactorily?

A. Yes, it has served its function very well. We have used the type of fitting here, both AC-811 Parker type and the AN type, for as long as I have been in the business. We did not use the AN type until very late in the war.

Q. 30. Are you familiar with the smaller type fittings that provide a double angle on the inside of the sleeve that engages the outer surface of the flare? A. Yes.

Q. 31. And has your company used fittings of that kind?

A. Yes, both the AC-811 sleeve and the AN sleeve and, as it was initially issued, I believe it shows the same double angle in the smaller sizes.

Q. 32. The drawing or type of fitting that you have just referred to is of the kind illustrated in Plaintiff's Exhibit No. 8? A. Yes. [113]

Q. 33. Is it customary and desirable to connect and disconnect two fittings to accessories or operating parts on a plane?

A. Yes, it is very necessary, both at the time of manufacture and very often—by that I mean we either buy a piece of equipment and it has to

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be tested, preferably by the accessory manufacturer—very often we inspect it and double check it at our plant, and we have to assemble it and re-assemble it again, and we also check it in the fluid system of the airplane itself. They are removed and we check those before we put them together, with other auxiliary connections, to make sure that all the connections are tight, prior to the final assembly of the airplane. That is very necessary with manufactured products, because the assembly lines are quite short and we cannot spend the time to go over all the lines on an airplane; so in other cases where we had to make these connections and break them, also in the field where there is the maintenance of the airplane, we quickly had to assemble these connections or a number of them in order to get at something else or to replace an accessory or something of that sort, or to modify the airplane or something like that which we have to make or the Government wants us to make.

Q. 34. So that a fitting is used—— [114]

A. It is re-usable, I will put it that way.

Q. 35. And, when re-used, must serve as efficiently as when first used?

A. That is correct. Well, not used in combination with other material or fittings that necessitates the replacement of any of the metal parts, because that would be too costly in the field.

Q. 36. And, likewise, inconvenient?

A. Yes.

Q. 37. In the double angle fittings of the small

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size you have referred to, as illustrated in Plaintiff's Exhibit No. 8, is it true that the sleeve first engages the outer flare of the tube over a very narrow line of contact?

A. Yes, that is very necessary. If the first contact is made farther down the tube, it would tend to push the tube back through the sleeve to a certain extent and not provide sufficient contact area between the inside flare of the tube and the top cone.

Q. 38. You mentioned the torque tension. By that do you mean the expansion of the lower end or the nose end of the sleeve, as the nut is brought up to proper torque?

A. That is correct. In order to create a proper connection between the inside surface of the tube and the outside surface of the body, it obviously requires a tension [115] force in the sleeve adjacent to this binding or contact, and that produces a circumferential tension in the sleeve which, for lack of a better word, we will call hoop tension.

I would like to go back for a moment, if I may, for a little more discussion on this flare diameter of the tube.

Q. 39. Go right ahead.

A. If the flare diameter—and by “flare diameter” I mean the maximum diameter of the tube—if that is too large it interferes with sliding the nut over the assembly in making it up, and it is obvious that it has to be less than a certain dimension, and it also has to be greater than the point of contact with the sleeve. If it is approximately the same

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diameter as that corresponding edge on the inside of the sleeve, it will definitely drive the tube back out through the sleeve when the joint is made up to the extent where it will fly out.

We have had trouble with that, and have had cases where you could actually pull the tube out or it flies out, and of course that kind of a joint is no good, so in our manufacturing procedure and inspection we require that all tubes are checked with a "go-and-no-go" gauge, to insure that the maximum diameter of the tube flare is within proper limits.

Q. 40. Would you mind explaining what a "go-and-no-go" gauge is? [116]

A. That is a piece of steel that the tube won't go in and will go in. Each tube, after being flared, has to go in one hole and not in the other. We have been using that, to my personal knowledge, for at least seven years in production.

Q. 41. Mr. Bergh, you mentioned something about proper clearance or the angle between the lower or nose end of the sleeve and the nut. What would happen if the sleeve actually jammed or engaged tightly against the inner wall of the nut when you were ready to assemble the joint?

A. Well, two things could happen when making the joint up initially pretty tight; it might tend to rotate the tube slightly just before the nut was brought up to its proper tightening torque in relation to the tube, or if it did not rotate the tube on initial assembly, it is perfectly proper to twist the

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tube during the make-up torque of the nut, or if the initial clearance as mentioned is still closer, it is conceivable that the nut will not be able to be rotated at all without twisting the tube, in which case it will damage the tube and necessitate replacement of it with a smaller size.

The torsional stiffness of the tube is of course greater in small sizes, and this condition has never been brought to my attention except in the smaller sizes, because usually in [117] the larger sizes there is sufficient torsional strength in the tube itself to prevent other than a momentary rotation of the tube. Except for defective parts, we have never had this trouble in production that we have just discussed here, if the parts are made in accordance with the proper dimensions.

Q. 42. However, if the nut and sleeve had jammed to such an extent that they were both rotated in unison, could that score or ruin the flare on the tube?

A. Well, I think it is fairly obvious that in any such condition the forces between the tube and the sleeve will be higher than the forces between the sleeve and the nut, once it has been made up. Even if they are both bound, you would expect the forces between the nut and the sleeve to be less than between the sleeve and the tube, as far as torsional rotation or twisting is concerned. I might add that once the assembly has been made up, the sleeve has been brought into very intimate contact with the tube near the sealing surface in such a manner that

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usually, once the joint has been made up, it is impossible to move the sleeve away from the flare of the tube.

To answer the question perhaps a little bit differently, it would be highly undesirable, if the nut became to any degree part of the assembly and it would be impossible to [118] disassemble it, and I think that scoring of the surface between the inside of the sleeve and the conical section of the body would be less serious than the damage to the tube itself unless of course it is possible to rotate the other body end which could conceivably be done in some cases.

Q. 43. Putting it in another way it is highly desirable that the nut be easily removed without mutually removing or in any way disturbing the sleeve proper? A. That's right.

Q. 44. Are these fittings in airplanes used in portions of the plane that we might call close quarters?

A. Very close quarters.

Q. 45. And are they likewise used where there may be a great number of fittings closely adjacent to each other?

A. Yes, in order to get all fluid line assemblies in our airplane we very often have to gang them together into a package more or less and very often we go so far as to make up a bundle of tubes with these connections on them and slide them into the airplane. We make up these bundles, and still we have to provide access to them, so that a mechanic still can loosen one of these nuts. It can be done, but

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it is not as easy, when you have a bundle, as it was when you had a joint for each tube assembly and then put them in the airplane; but the point is, it can be done. [119]

We also like to be able to use torque wrenches, the Government has a requirement with respect to checking the torque on these kind of connections. It is not an ideal method of knowing that everything is perfect, but it is the best method we have. We endeavor to use it quite often, and the inspectors have to go in occasionally to see that the mechanics are properly tightening the connections. A connection may appear to be tight initially, but may loosen under the action of vibration or high pressure, if we don't give some inspection to the made-up joint.

Q. 46. In airplanes the safety of the plane and the proper functioning of the plane is, to a great extent, dependent upon a proper joint being made between the tube and the operating mechanism of the plane; is that correct?

A. Yes, I think that all the troubles we have with airplanes—and by “troubles” I mean big troubles, either serious damage to the airplane or loss of the plane or fire as a result of fluid line leaks—I would say that things such as these, and other relatively small things when you see them, are the cause—not only fluid line connections, but I mean spacing electric wires properly and putting insulation on them—things of that type I think are responsible for a lot more than fifty per cent, and I should say seventy-five per cent of the real troubles

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that we have on our airplanes, [120] aside from accidents due to the planes themselves. Putting it another way, airplanes do have accidents, and the majority of course are due the pilot's error or to the weather, but subtracting that kind of accidents, which are caused by either the pilot or the weather, improper information given to him over the radio or something like that—those are caused to a much higher degree than would be caused by the structural weakness of the airplane itself.

I might say that our own experience has been that, when we have an accident, ninety per cent of the time it is due to faulty installation rather than structural design, so it is the little things that make the big difference, and I have always found that if you lick the little things, they create the majority of our headaches.

Mr. Freeman: That is all. You may cross-examine.

Cross-Examination

By Mr. Beehler:

XQ. 47. You mentioned, I believe, Mr. Bergh, that you worked for a company called Fleetwings, Incorporated.

A. That is correct.

XQ. 48. What business were they in?

A. I thought I made it clear that I started in the aviation business when I left college. We were manufacturers, initially, of small components for other airplane manufacturers, [121] and we gradu-

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ally worked into assemblies of complete control devices and fittings for other manufacturers, and finally we built two or three different airplanes ourselves, one of which was put into production just as I left the company at Bristol, Pennsylvania, and our particular field was stainless steel construction, spot-weld stainless steel construction, which we pioneered in the industry.

XQ. 49. Did you have occasion to use two-piece fittings when you worked for Fleetwings, Inc?

A. Yes, we used them, but I frankly admit that I did not pay much attention to them at that time. I couldn't even be sure whether they were two-piece or three-piece fittings, but I know that we had used those at the time. Of course, I wasn't as well versed on the subject at that time, except that I believe we used what other airplane people used.

XQ. 50. Are you familiar with the two-piece flare fitting? A. Yes.

XQ. 51. When did you first become acquainted with the two-piece flare fitting?

A. Well, when I became acquainted with it is rather hard for me to answer. I distinctly remember that we started using—I don't know whether we actually used them or not, but I believe we did use some on our first airplanes that we made down there at Fleetwings. The only reason I remember [122] that is because I remember using a bunch of so-called NAF drawings which defined dimensionally the shape of the nut or sleeve, as you call it, which

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is one piece of metal required to be used on all Naval aircraft.

In addition to that, I distinctly remember something in connection with some other work that we had, which was the forerunner of the two-piece fitting. I don't know what the dimensional change was between that NAF and I believe what is called the AN-819, which is a similar looking fitting under the AN series.

XQ. 52. Are the two-piece flare fittings reusable?

A. To the best of my knowledge, they are, but I am not certain. As I say, since I left Fleetwings and came to what is now called Republic Aviation—it was then called Seversky Aircraft and was taken over by Republic in 1937 or 1938—we were always supposed to be required to use the three-piece type of fittings.

XQ. 53. Have you used the two-piece type of fittings yourself since you came to Republic?

A. No, sir, I don't know of a single instance where we have used the two-piece fittings.

XQ. 54. Republic Aviation does not supply any aircraft to the Navy, does it?

A. No. Frankly, I am not familiar with Parker's relation [123] to the two-piece fitting.

XQ. 55. I refer you, Mr. Bergh, to Plaintiff's Exhibit No. 2, and I wish that you would recall your testimony with regard to the contract between the sleeve shoulder and the nut shoulder.

A. Yes.

XQ. 56. You stated, I believe, that the area of

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contact between those two shoulders is important; is that correct?

A. Yes, because of the force that makes the compressive connection between the inside of the flare of the tube and the body.

XQ. 57. Is that area critical?

A. Well, let's put it this way: Any time we find stresses that are too low, we have to do something about it. By that I mean our airplanes only perform on the basis of the strength-to-weight ratio, which is a very critical item that makes the airplane take off. If it is too heavy, it won't fly. You can make a very safe airplane by keeping the stresses very low but, unfortunately, the airplane will never take off, so we have to worry about the weight of the assembly.

As I say, I was very intimately connected with checking up the fittings, and we have to keep the dimensions to reasonable amounts and keep the weight down, and still serve [124] the functions that they have to serve. I believe I prefaced my opening statement that the thing has got to work, first; it has got to fit, be the lightest we can get, and cost the least. Those things are important things and not comparable to industrial applications, where weight doesn't make so much difference.

XQ. 58. Do you know what safety factor was recommended with respect to these two shoulders?

A. Well, two things enter into that. You have to keep the stresses down, so that fatigue, and so forth, will not take place. That is the low limit, and of course a certain amount of experience is a factor

(Deposition of Roland C. Bergh.)

involved in these things. You cannot just say, arbitrarily, if the stress goes up from 15,000 to 20,000 pounds, that is all right, and if you go under 10,000, that is wrong. There is a certain amount of experience necessary in those things.

A number of tests were run by the Government and accessory manufacturers and airplane manufacturers, to make sure that these things would serve their function, with reasonably light weight. The cylindrical section of the sleeve was decreased from the original AC-811 type, and the original AN sleeve was decreased for normal use, and the only exception to that was in the length of the sleeve. I think the navy has one arrangement and the Army has another. I don't believe [125] they even call it AN.

XQ. 59. With respect to this Plaintiff's Exhibit No. 2, Mr. Bergh, note, please, the interior of the nut, the portion that surrounds the head of the sleeve.

A. Yes.

XQ. 60. Suppose, for example, that the diameter of the interior portion were increased .004 of an inch. Would that necessitate increasing the outside diameter .004 of an inch to maintain a safe coupling?

A. Well, that is a hard question to answer. You say .004 of an inch, but I don't know what the taper is. I know that very careful studies of these were made by the Air Force of each size. I think they blew up pictures twenty or twenty-five times, and then they set up the AN dimensions in relation to the previous three-piece AN fittings, to stay within reasonable proportions of the prior art fittings.

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XQ. 61. These nuts are made up from standard hexagonal rods, are they not?

A. No, not standard hex rods, because we ran into trouble there, and just to show you the trouble we ran into, the chief producer of the hexagonal stock from which all nuts are made, so far as I know—it was found that the commercial tolerances were excessive, with regard to just a small thing like having a so-called standard wrench, to make sure that [126] either the parallel type of wrench or the box type of wrench would fit. We definitely ran into that trouble, and that necessitated setting up closer tolerances than the commercial stock.

XQ. 62. Let me interrupt you for a moment. What do you mean when you say that the hexagonal rod was not standard, so that it had to be made to closer tolerances than standard?

A. I mean that the maximum dimension had to be such that the wrench would fit without slipping.

XQ. 63. Those dimensions were standard commercial sizes, were they not?

A. No; so far as I recall, they were fractional dimensions.

XQ. 64. Isn't it true, Mr. Bergh, that the outside diameter of the hexagonal rod controls to a greater degree the clearance that is available——

A. Did you say maximum or minimum degree?

XQ. 65. Either one—that it has a greater effect on the clearance which is available to you than a matter of some .004 of an inch variation of the parts on the inside of the fitting?

A. Well, I would say that the tolerance, so far

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as I recall, measured across the flat surface of the hex, was probably wider. Perhaps some more light can be shed on the [127] question you have asked me if I say we have had trouble, particularly during the war, with two things in connection with defective materials: One, in the material out of which the sleeve was made. I believe we used exclusively in our company for years a copper silicon, and that type of sleeve we had always found would take the tension created better than the other materials, particularly in the small sizes. We had cases where cracks would form where the material was not properly processed.

I had occasion to attend various meetings of the Aeronautical Board and the Army and Navy where, during the war, they tried to force us to give up the use of copper silicon for sleeves. We had had this trouble, and we knew that if we changed to another basic material on the sleeves—by test we found we were having more trouble, so we, for one—and I believe other airplane manufacturers had trouble—so we decided that we definitely needed this copper silicon material, which is capable of taking the tension without cracking.

This cracking that I mention is something that would not necessarily happen the first time the joint was made up. We found cases where the joint was apparently tight and, on the first disassembly, we found it was cracked down through one line. In some cases that did not create a leak but, on re-tightening, it did. So the Government finally permitted us—although [128] it was a critical material

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—permitted us to use copper silicon for the sleeves. I mention this because it shows wear on the inner edge of the sleeve.

Now, so far as the nuts are concerned, I would say that almost 99 per cent of the nuts we use, except on flexible hose assemblies with an aluminum alloy type of nut, showed imperfections or defects in the hexagonal bar stock—and I think you had it, and we all had it. We had cracks like this (illustrating). Here is the hex shape of the bar, and at some point through here (indicating) we would get a crack.

XQ. 66. Some place across the bar?

A. That's right, yes, across the short dimension, we had trouble with cracks there, and it was found that there were either imperfections in the billet that did not show up until the nuts had been used or——

XQ. 67. The cracks did not have any relationship to the area of contact between the nut shoulder and the sleeve shoulder, did they?

A. Well, it is obvious that there are tension forces created in the nut as well as in the sleeve. Those tension forces are primarily due to the angle of the thread, and when you screw the nut up tight, it applies this force in such a direction that it tends to create a tension effect on the nut as well. I believe that the cracks we found there in the [129] nuts were primarily due to the spread effect. I don't have proof whether it was—we know it was defective material, I will put it that way—but whether it

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was the effect of the thread expanding or the expansion of the sleeve, actually I don't know. I think that was very much less likely to be the case; I think it was more likely to start at the free or open end of the hex nut and work back.

XQ. 68. Tell me in your own words, Mr. Bergh: Is a sleeve head angle such as illustrated in Plaintiff's Exhibit No. 2 necessary in order to have that coupling work successfully?

A. To be perfectly honest with you, I cannot say anything definite about that, because we have always used this fitting arrangement here (indicating), and the only way you can tell a thing like that is to have a lot of experience whereby you can determine that. A few isolated tests will not answer the question, Mr. Beehler. We have had cases where the parts stood up all right by test, according to engineering practice, analysis and specification, but gave trouble in service. All I can say is that I know these work and I believe, from the point of view of minimum weight and knowing that the sleeve will expand somewhat, that this (indicating) will be a little more efficient. That is as far as I can say.

XQ. 69. Do you recall, about the time that you first began [130] to work with Republic Aviation, whether or not the sleeves of the three-piece couplings then used had a sleeve head angle?

A. As far as I recall, yes. The only way I can answer that question is to say that the AC-811 sleeve that was in our standard book—they wouldn't permit you to manufacture any of the standard fittings

(Deposition of Roland C. Bergh.)

and, as we had to do something, we obtained the dimensions of the AC-811 fittings from the Parker Appliance Company, and I think I still have a set of the things. I brought them along with me in my brief case and I could check them, if you want me to. I have dimensions on the drawings here, but my best recollection is that they were——

XQ. 70. Just a minute. Do you recall the first of those drawings, without looking at them?

A. No.

XQ. 71. Will you look at them, please, Mr. Bergh?

A. I recall a bulletin about these things, telling the company how to use these things, back in 1943, when they first came out. This drawing here, of which I have copies, is dated October 25th and shows a $11\frac{1}{2}$ degree angle on the cylindrical outside surface of the sleeve.

XQ. 72. And that is a drawing which is identified as 811-T, I believe. [131]

A. 811-T, yes. Actually, these drawings here were not issued by the Army Air Force, they were issued by the Parker Appliance Company, and I believe were distributed through the Army Air Force to anybody who wanted to make these fittings, because the 811 drawing sheet was inadequate to show the dimensions of the various pieces.

XQ. 73. I will ask you, Mr. Bergh, whether those drawings are the earliest drawings you have in your possession here.

A. These are the only drawings that I have of

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the so-called AC-811 type of fitting. If anybody has an AN book here, showing the 811 sheet, I could show you what I mean.

XQ. 74. No, that is not necessary.

A. It is one piece of paper the size of this (indicating), which is supposed to give all the necessary engineering information for all the AC fittings that the Army had in effect. There may have been sixty or eighty fittings on that one piece of paper.

XQ. 75. Did you use any three-piece couplings prior to the time that the AC-811 specifications were promulgated?

A. The AC-811 sheets, they were in our standard book as far back as I can recall. I don't know the initial date of issue. Has anybody got that book here? I could certainly identify it, if they have. I am almost absolutely certain that the original AC-811 sheet did not show these [132] dimensions or any other manufacturing dimensions of the AC-811 fitting. You can answer that better than I can. The only dimensions that I recall on the 811 sheet were more or less installation dimensions.

XQ. 76. Mr. Bergh, may I suggest that if you will just kindly answer the questions and not continually volunteer, we might be able to shorten the record and save considerable time here?

A. Yes, sir.

XQ. 77. Let me ask you this question, Mr. Bergh: From about 1935 until, let us say for example, 1937 did you experience any difficulty with the

(Deposition of Roland C. Bergh.)

head of the sleeve of the three-piece coupling seizing the nut, as the nut was backed off the fitting?

A. When I was first employed at what is now called Republic, I was in the structures end of the company and, until I became an engineer, which was around 1939, I was not in that end of the business to be able to honestly answer your question.

XQ. 78. In 1939, then, did you have any experience with the sleeve head sticking in the nut as the three-piece coupling was uncoupled?

A. No, sir, I cannot say that I recall any trouble with the fittings until considerably later than [133] that.

XQ. 79. Subsequent to the adoption of the AN standard dimensions for the three-piece fittings, Mr. Bergh, have you experienced any sticking of the head of the sleeve in the nut?

A. All I can say is that it has not been brought to my attention.

XQ. 80. Along about 1939 or 1940, Mr. Bergh, namely, your first experience with the three-piece flared fitting, you recall, do you not, that the nut shoulder, as that part is labeled on Plaintiff's Exhibit No. 2, was not perpendicular to the axis of the nut but, rather, tilted at a slight angle; is not that so?

A. You mean this surface here (indicating)?

XQ. 81. The surface of the interior of the nut shown on Plaintiff's Exhibit No. 2.

A. Was not a flat surface?

(Deposition of Roland C. Bergh.)

XQ. 82. Was a flat surface, but tilted with respect to the axis of the nut?

A. It couldn't be a flat surface; it had to be a conical section.

XQ. 83. Well, was it a conical section?

A. I cannot answer that. I would have to look up and check the drawings I have here.

XQ. 84. You said, I believe, that it was desirable, Mr. [134] Bergh, not to have the tube rotate when a coupling is disassembled. A. Yes.

XQ. 85. Have you had occasion to disassemble two-piece couplings?

A. No, sir; I said I have had no experience with two-piece couplings. I have never used them, and I couldn't say.

XQ. 86. You stated, Mr. Bergh, I believe, that you were a member of Committee A-3 of the S.A.E.

A. That is correct, I was, at the time the bulletin was written that you have in your hand there.

XQ. 87. Do you subscribe to this statement which I read from page 1 of the bulletin entitled "S.A.E. Aeronautical Information, Report No. 1:"

"b. Sleeve Nuts: The AN-817 sleeve nut is interchangeable with the AN-818 nut and AN-819 sleeve combination. However, tests show that the nut and sleeve combination will permit closer tube bend, more repeated disassembly and reassembly and more wrench torque."

A. Could I see that, myself?

XQ. 88. Certainly (handing to witness).

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A. Yes, I believe that the statement which says "that the nut and sleeve combination will permit closer tube bend, more repeated disassembly and reassembly and more wrench [135] torque" is a true statement of the facts.

XQ. 89. Thank you, Mr. Bergh. When that recommendation was made which I just read to you, do you recall who made the tests which accounted for that recommendation?

A. No, sir, I cannot answer that. The only way I can answer your question is to state, by inference only, because the Air Force wanted us to use the three-piece fittings and insisted upon it, and I say by inference only, because of that fact. It is more expensive, I believe, for a three-piece instead of two, but as long as we were making the airplanes, we had to follow their specifications and use the three-piece fittings instead of two-piece fittings.

Mr. Freeman: Are you going to put this bulletin in the record, Mr. Beehler?

Mr. Beehler: I can, if you wish. Now may we have a couple of minutes recess, Mr. Freeman?

Mr. Freeman: Certainly.

(Whereupon a short recess was taken.)

XQ. 90. One more question, Mr. Bergh, with regard to this same S.A.E. Committee A-3 report, page 1 of which I previously referred to. It is true, is it not, that the AN-817 sleeve nut mentioned in that paragraph is a sleeve nut which is used exclusively with a two-piece flared fitting?

A. Yes. [136]

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XQ. 91. Then would you like to clarify your previous statement to the effect that you had had no experience at all with the two-piece flared fittings?

A. To my personal knowledge, we have never put in the AN-817 sleeve nuts.

XQ. 92. You stated, I believe, that you, yourself, had never used the two-piece coupling. Is that still your statement?

A. Yes, sir. If that is a fact, it is something that I am not at all aware of, and it would be contradictory to Government specifications for an Army airplane. It is true that deviations are granted by the Government in special cases, and perhaps in isolated cases we may have asked the Government to permit the use of an AN-817, but I can say truthfully that for the last two and a half years at least, all the correspondence that comes in to the company and goes over my desk would so indicate, from just quickly glancing at the letters, but I am not saying it didn't happen.

Mr. Beehler: That is all.

Mr. Freeman: Are you willing to waive the reading and signing of the testimony by the witness?

Mr. Beehler: Yes, that is agreeable.

Mr. Freeman: Thank you very much, Mr. Bergh. That includes the taking of depositions in New York. [137]

At this time I am going to ask you, Mr. Beehler, to send me a photostat of the cover page of that

bulletin entitled "S.A.E. Aeronautical Information, Report No. 1" and the particular page a portion of which was read into the record, with the understanding that the bulletin will be made available to counsel for the plaintiff at a later date, if necessary.

Mr. Beehler: That is satisfactory.

Signature waived.

(Whereupon, at 11:25 A.M., May 11, 1949, the foregoing depositions were [138] concluded.)

State of New York,
County of New York—ss.

I, Irwin T. Shaw, a Notary Public and Certified Shorthand Reporter of the State of New York, do hereby certify

That the foregoing depositions of W. Howard Ehmann, William D. Clark, and Edward M. Greer were taken on behalf of the plaintiff in these actions pursuant to notices dated April 6, 1949, before me at the offices of Messrs. Cravath, Swaine & Moore, 15 Broad Street, New York 5, N. Y., on Tuesday, May 10, 1949, between the hours of 10:00 A.M. and 4:15 P.M.

That the said witnesses were by me duly sworn before the commencement of their testimony, which was recorded by me stenotypically and thereafter reduced to typewriting under my direction; and that the foregoing transcript constitutes a true and correct record of the proceedings herein.

That the parties to these actions were represented

at the taking of said deposition by counsel as set forth in the list of appearances.

That pursuant to stipulation the reading and signing of the depositions by the witnesses are waived, and

That I am in no way whatsoever related to or associated with either of the parties hereto or their attorneys, nor am I interested directly or indirectly in the matter in controversy.

In Witness Whereof, I have hereunto set my hand and affixed my official seal in the City, County and State of New York this 20th day of May, 1949.

[Seal] /s/ IRWIN T. SHAW,

Notary Public in the State of
New York. [139]

State of New York,
County of New York—ss.

I, James W. Maxwell, a Notary Public and Certified Shorthand Reporter of the State of New York, hereby certify

That the foregoing deposition of Roland C. Bergh was taken on behalf of the plaintiff in these actions pursuant to notices dated April 6, 1949, and adjournment from May 10, 1949, before me at the offices of Messrs. Cravath, Swaine & Moore, 15 Broad Street, New York 5, N. Y., on Wednesday, May 11, 1949, between the hours of 9:30 A.M. and 11:25 A.M.

That the said witness was by me duly sworn before the commencement of his testimony, which was recorded by me stenographically and thereafter

transcribed; and that the foregoing transcript constitutes a true and correct record of the proceedings herein.

That the parties to these actions were represented at the taking of said deposition by counsel as set forth in the list of appearances.

That pursuant to stipulation the reading and signing of the deposition by the witness is waived, and

That I am in no way whatsoever related to or associated with either of the parties hereto or their attorneys, nor am I interested directly or indirectly in the matter in controversy.

In Witness Whereof, I have hereunto set my hand and affixed my official seal in the City, County and State of New York this 20th day of May, 1949.

[Seal] /s/ JAMES W. MAXWELL,
Notary Public, State of New
York.

[Endorsed]: Filed June 22, 1950. [140]

PLAINTIFF'S EXHIBIT No. 12

In the District Court of the United States,
Southern District of California, Central
Division

Civil Action No. 7874-B

THE PARKER APPLIANCE COMPANY,

Plaintiff,

vs.

IRVIN W. MASTERS, INC.,

Defendant.

NOTICE OF TAKING DEPOSITIONS

To: Vernon D. Beehler, counsel for Defendant,
Irvin W. Masters, Inc.

Please Take Notice that the Plaintiff, The Parker Appliance Company, by its attorneys, Bair & Freeman, will take the deposition of the party Defendant, Irvin W. Masters, Inc., by its agent and officer, Irvin W. Masters. The deposition will take place at 1:30 p.m. on July 11, 1949, at the offices of Lyon & Lyon, 811 West Seventh Street, Los Angeles 14, California, before an officer duly authorized by law to take depositions. You may attend and cross-examine if you see fit to do so.

LYON, LYON, CHARLES G. .
LYON,

Attorneys for Plaintiff.

Of Counsel:

/s/ WILL FREEMAN,

/s/ W. M. VAN SCIVER.

Plaintiff's Exhibit No. 12—(Continued)

June 28, 1949.

Proof of service attached.

In the District Court of the United States for the
Southern District of California, Central
Division.

Civil Action No. 7874-B

THE PARKER APPLIANCE COMPANY,

Plaintiff,

vs.

IRVIN W. MASTERS, INC.,

Defendant.

Deposition of Irvin W. Masters, taken on behalf of plaintiff, at Suite 800, 811 West 7th Street, at the offices of Lyon & Lyon, Los Angeles, California, at 1:30 o'clock p.m., July 11, 1949, before W. E. McClure, a Notary Public within and for the County of Los Angeles and State of California, pursuant to the annexed notice of taking depositions.

Appearances of Counsel:

LYON & LYON, Esqs.,

CHARLES G. LYON, ESQ., and

BAIR & FREEMAN, ESQS.,

WILL FREEMAN, ESQ.,

For Plaintiff.

VERNON D. BEEHLER, ESQ.,

For Defendant.

Plaintiff's Exhibit No. 12—(Continued)
(Deposition of Irvin W. Masters.)

IRVIN W. MASTERS

having been duly affirmed, testified as follows:

Direct Examination

By Mr. Freeman:

Q. You are Irvin W. Masters, president of the Irvin W. Masters, Inc.?

A. Irvin W. Masters, that is right.

Q. Have you produced, or do you have with you drawings requested by motion?

A. I do, in the main, Mr. Freeman. Some items, we have used drawings not specifically called out, namely, in some cases we used the same drawings for aluminum that are—used the aluminum drawings for making steel or brass or copper silicon parts.

Q. And whether made out of aluminum or other metals the drawings with respect to dimensions are the same?

A. In some instances, yes.

Q. Will you please produce the drawings that you have available in response to the motion?

(A discussion was had off the record.)

Q. (By Mr. Freeman): Now, Mr. Masters, you have produced two sets, or a duplicate set of drawings in a file which is marked "Active"; that is correct, is it not?

A. That is correct. [2*]

Q. And you have likewise produced a file of drawings represented by blueprints, about 25 in

Plaintiff's Exhibit No. 12—(Continued)
(Deposition of Irvin W. Masters.)

number, which are marked "Inactive," and of which you have only one set?

A. That is correct.

Q. And it is my understanding that you want the prints returned to you, so that I am going to ask that a duplicate set of photostats be made by you or your attorney and furnished to the plaintiff at plaintiff's expense. That is agreeable, is it not?

A. That is agreeable.

Q. And I understand further that you have been searching for drawings, those that were specifically requested, and you have produced those that you have found up to date, and that there may be perhaps other drawings requested which if you do find you will make them available to us as soon as possible?

A. That is correct, other inactive drawings.

Q. Now, Mr. Masters, you have been requested to produce catalogs or literature with respect to fittings, and have you checked your records, and have you produced such literature?

A. I have here copies of everything now available. I believe that there have been lists produced in the past which are not now extant, but this covers the bulk of what we have turned out.

Q. And the literature that you have here produced, [3] do I understand that we may retain it, keep these copies? A. That is correct.

Mr. Freeman: I take it, Mr. Beehler, at the trial you will not question the production of any of these

Plaintiff's Exhibit No. 12—(Continued)

(Deposition of Irvin W. Masters.)

documents, and that we may offer them in evidence without any further proof as matter put out by Irvin W. Masters, Inc.?

Mr. Beehler: That is satisfactory.

Mr. Freeman: And that the same applies with respect to the active prints and the inactive prints which have been furnished and which will be furnished us by Mr. Masters or the Masters Company, right?

Mr. Beehler: That is correct.

Q. (By Mr. Freeman): Now, Mr. Masters, where is your plant located?

A. 1060 North Lake, Burbank.

Q. Will you tell me when you started in the fitting business, as a manufacturer of fittings?

A. Well, about May, 1941.

Q. And you started at about the time that our country was in its so-called preparedness program?

A. That is correct, as a manufacturer. I sold fittings prior to that.

Q. As a manufacturer I understand you started in 1941, and is it correct that your principal efforts were directed to fittings applicable to the aircraft industry?

A. That is correct. [4]

Q. And is it likewise correct that your attention from 1941 on down to substantially the present date has been with fittings directed to the aircraft industry?

A. In the main, yes.

Q. Are you familiar with the aircraft fittings commonly known as the Parker type?

Plaintiff's Exhibit No. 12—(Continued)
(Deposition of Irvin W. Masters.)

A. Those are the ones designated as the 811 fittings, I believe. Yes.

Q. You know as a fact that they have been referred to and are referred to as the Parker type fitting?

A. Yes, they are quite generally known as Parker type fittings.

Q. It is a fact that you personally have referred to such fittings by the name "Parker type"?

A. Well, I have no knowledge of so referring to them in any of our sales literature, if that is what you mean.

Q. Well, aside from sales literature, in conversation with customers and prospective customers have you referred to fittings of the kind here involved as the "Parker type"?

A. Well, I have avoided such reference as much as I could, because we were interested in Masters' fittings, but when people spoke of "Parker type fittings" I knew what they were, and everybody does.

Q. And you sold Masters fittings when people or customers referred to them as Parker type, correct? A. That is correct. [5]

Q. Is it true that in correspondence that you have carried on with the Air Materiel Command at Wright Field reference was made to Parker type fittings in such correspondence?

A. I don't know.

Q. You did have, of course, correspondence with

Plaintiff's Exhibit No. 12—(Continued)

(Deposition of Irvin W. Masters.)

the Industrial Resources Branch and Requirements Branch of the Production Resources Section, Materiel Center, Wright Field?

A. I don't just recall that description, but that fits the sections which had such functions as the name described there, yes.

Q. The functions of the section that I have just described, whether by that name or one closely simulating it, you answered correspondence when they asked you about your capacity for the manufacture of Parker type fittings?

A. Yes. However, they were most frequently designated by the accepted Government numbers, 810 and 811—811, primarily.

Q. And likewise by——

A. There were other designations.

Q. Such as AN?

A. And the AN, yes, that is right.

Q. And it is a fact that during the war you did make available to the Materiel Command at Wright Field your production possibilities?

A. Yes. [6]

Q. Now, I understand that you began manufacturing fittings some time after the summer of 1941?

A. No—well, in the late spring of '41.

Q. You were going at full force in the year 1943? I just picked that out as sometime after——

A. Late '43 was in peak production, yes.

Q. And you continued manufacturing the same

Plaintiff's Exhibit No. 12—(Continued)
(Deposition of Irvin W. Masters.)

fittings in 1943 that you started with in the spring or summer of 1941, correct?

A. The same type. There was a great many more items.

Q. In other words, your line expanded by 1943?

A. Very substantially.

Q. Then let's take 1945. You made the same type of fittings or the same kind of fittings in 1945 that you made in 1943? A. Yes, the same type.

Q. And the same answer, I take it, applies to 1947, right on up to date?

A. That is correct.

Q. Except at the present time I understand that there is less quantity? A. That is right.

Q. It is true, is it not, that in 1943, if you will recall, you received drawings from The Parker Appliance Company with respect to Parker type fittings?

A. I think likewise that is true in a few [7] instances.

Q. Do you recall under date of August 12, 1943, receiving a set of drawings from Parker Appliance Company with prints attached? By "prints" I have reference to blueprints or shop prints, dimensional drawings.

A. Well, I don't recall specifically that date. The principal drawings that we received on the 811 fittings was a set of drawings sent to us by the Air Corps.

Q. That was of the Parker type?

Plaintiff's Exhibit No. 12—(Continued)

(Deposition of Irvin W. Masters.)

A. That was of the 811 type, which you refer to always as the Parker type.

Q. Did you say I refer to it always?

A. That is correct.

Q. And it is likewise true that the industry referred to them as the Parker type, too?

A. Not invariably. It is a good deal like the name Stillson. Just when people think of a pipe wrench they think of Stillson, and Parker was just in our hair so much, why, that was the quickest way to say it.

Q. Do you recall, Mr. Masters, receiving a complete set of 811 prints from The Parker Appliance Company in December of 1943?

A. No, I don't recall that.

Q. You were on the Independent Advisory Committee with regard to fittings, were you not, during the war?

A. That is right.

Q. Does it refresh your memory when I tell you that [8] you had some conversation with a Mr. Amon of The Parker Appliance Company with respect to the 811 fittings?

A. Well, we had many such conversations. The 811 fitting was used quite extensively during the period of time that we were having those committee meetings, and they were discussed a lot, yes. I am not saying that we did not receive the drawings, because we were all operating with a great deal of freedom then, and each gave the other anything they asked for, and I know that drawings were received,

Plaintiff's Exhibit No. 12—(Continued)
(Deposition of Irvin W. Masters.)

but I was under the impression we got them mainly through the Air Corps.

Q. Do you still have your correspondence available for say the year 1943?

A. As far as I know we have all of our correspondence, yes.

Q. I am wondering, Mr. Masters, if you would look up a letter from The Parker Appliance Company to you dated August 12, 1943, and also a letter to you from The Parker Appliance Company dated December 3, 1943, with respect to prints attached to the letters, and permission granted by The Parker Appliance Company, which permission was to terminate on cessation of hostilities?

A. I will look it up.

Q. And likewise you will have such letters available at the trial?

A. Yes, if they are in our files.

Q. Now, you have continued after the cessation of [9] hostilities to commercially sell airframe manufacturers fittings of the kind you sold to such airframe manufacturers during the war; correct?

A. Yes.

Q. And you now sell such fittings?

A. That is right.

Q. And you sell them to anyone who wants to buy them?

A. That is right, who has a record of paying for them.

Q. Just for the record's sake, you were present

Plaintiff's Exhibit No. 12—(Continued)

(Deposition of Irvin W. Masters.)

during the taking of the testimony of Amon and Davies in Cleveland, Ohio, and likewise during the taking of testimony in New York City?

A. That is right.

Q. You understand, do you not, Mr. Masters, that the suit brought by Parker Appliance Company involved only Parker Letters of Patent No. 2,212,183?

A. No, that is not my understanding. I know that was the patent number called out, but I considered it involved two previous patents, the numbers of which I do not recall, but which are named in that patent itself.

Q. Just so the record is straight, when the suit was filed, that is, the complaint filed by The Parker Appliance Company, you were charged with infringement of only Letters Patent 2,212,183?

A. That is correct, but that patent is in its [10] specifications described as an improvement of two previous patents, and I personally considered it so involved—they so involved.

Q. When you refer to the two previous patents being mentioned in Patent No. 2,212,183, I assume you are referring to the first paragraph of the patent wherein reference is made to "The present invention relates to new and useful improvements in tube couplings, and more particularly to improvements in couplings for clamping the flared ends of metal tubes such as are typified in U. S. Letters Patent to Arthur L. Parker, 1,893,442 and 1,977,240

Plaintiff's Exhibit No. 12—(Continued)

(Deposition of Irvin W. Masters.)

of January 3, 1933, and October 16, 1933, respectively"; correct? A. That is correct.

Q. And your counterclaim for declaratory judgment filed in this case is directed to Patent Nos. 1,893,442 and 1,977,240; correct?

Mr. Beehler: That is correct.

The Witness: Right.

Q. (By Mr. Freeman): Now, Mr. Masters, will you tell us what threats were made by The Parker Appliance Company against you or any of your customers with respect to the 1893 and the 1977 patents?

A. I don't like the sound any more than you do of the word "threat," but there were letters written to various airframe companies and to ourselves by The Parker Appliance Company, in which you have stated that—The Parker Appliance [11] Company stated that the permission to use the Parker patents publicly had been withdrawn, and that The Parker Appliance Company now found it necessary in the regular course of business to assert those patent rights, and we and our customers regarded that as an indication that you were going to bring legal action.

Q. You never received any letter charging your company with infringement of either Patent 1893 or 1977, did you?

A. The reference is to the two later—two earlier patents?

Q. Yes.

Plaintiff's Exhibit No. 12—(Continued)

(Deposition of Irvin W. Masters.)

A. I do not recall those numbers being specifically called out. Your communication to us stated that your legal department regarded that we were infringing Patent No. 2,212,183 and other patents. We asked for information as to the other patents and what the infringement was, and you stated—you answered, stating that you would respond to that later, but we never got any response.

Q. In fact, you were never threatened under Patent No. 1893 or No. 1977 by The Parker Appliance Company?

A. Well, we felt that there was an implied threat, because of the patents being tied together.

Q. Is that the reason for your declaratory judgment counterclaim?

A. Not altogether. Your license agreements executed with other companies and license agreement proposed to us [12] called out all three patents.

Q. Now, you have mentioned that your customers were threatened. Was that also by an implied threat of the kind that you just referred to in your preceding answer?

A. Not specifically. The Parker Appliance Company wrote the airframe manufacturers asserting the Parker alleged patent rights.

Q. Under patent number 1893 and 1977?

A. I only have definite knowledge that you referred to Patent 2,212,183 and other patents.

Q. You do not have any definite knowledge or any letters or concrete evidence with respect to the 1893 and 1977 patents, do you?

Plaintiff's Exhibit No. 12—(Continued)
(Deposition of Irvin W. Masters.)

A. Yes, I have such letters in my file of previous years, dating back for 13 years. Parker has—The Parker Appliance Company has frequently essayed to assert its patent rights.

Q. Since you entered the manufacture of fittings in 1941 have you any correspondence or any concrete evidence with respect to any assertion of either 1893 or 1977 patents against you as an individual, or your company, which bears your name?

A. I believe not as to those specific numbers, but since the letters referring to Patent 2,212,183 referred to other patents also, we always associated these two other patents that are called out in 2,212,183. [13]

Q. And that was the basis of your allegation in Paragraph XXVII "That upon information and belief plaintiff, by its agents, officers, employees and other persons responsible for its actions, has repeatedly and on many occasions openly and avowedly accused the defendant of infringing each and every one of the patents numbered 1,893,442, 1,977,240 and 2,212,183 and all the claims thereof"?

A. You are aware, Mr. Freeman, I believe, that your salesmen and representatives have consistently through the years, even the war years, and persistently called attention to Parker's patent rights, and our counterclaim there——

Q. Now, I want to know the name of the salesman or representative or employee of The Parker

Plaintiff's Exhibit No. 12—(Continued)

(Deposition of Irvin W. Masters.)

Appliance Company that "on many occasions openly and avowedly accused the defendant of infringing each and every one of the patents"—the three were mentioned—"and all the claims thereof."

A. Well, I would like to not be confined by this answer to these two alone, but I know that Fred Amon and Bob White have made such assertions, or such have been reported to me, and, in fact, statements to me by them.

Q. You are testifying now under oath that the two gentlemen that you have mentioned in your preceding answer have openly and avowedly accused the defendant, and that is the Irvin W. Masters, Inc., of infringing 1893 and 1977 patents?

A. Well, I consider that I ought not to make reference [14] specifically to those two patents. It was often told that we were infringing across the board, and so, so far as the public is concerned and the industry, these patents which were extant previous to 2,212,183 were the ones regarded as being asserted from time to time by The Parker Appliance Company, and these men, as well as Mr. Parker himself, often told us that we would have our ears slapped back when the emergency was over. It was known that I had not personally received a license from The Parker Appliance Company, and had taken the position that I did not want a license. Many conversations in these Aircraft Scheduling Committee meetings to the effect that we were just tolerated momentarily.

Plaintiff's Exhibit No. 12—(Continued)
(Deposition of Irvin W. Masters.)

Q. You had no trouble getting any prints of the Parker type fittings from the Parker Company when you wanted them with respect——

A. We had considerable trouble.

Q. With respect to the war effort?

A. Yes, we had considerable trouble.

Q. Go ahead and tell us a little bit about this considerable trouble that you had, give us the names of the individuals you had the trouble with?

A. Trouble? Just didn't get a response to our requests for drawings.

Q. Were those requests made in writing?

A. I believe they were. I think I can produce letters and I think I can produce some negative responses [15] too.

Mr. Freeman: I am going to ask that you do make available to us within a reasonable time after the close of these depositions photostatic copies of any of your requests to The Parker Appliance Company, as well as the responses that you received from The Parker Appliance Company, and again we will pay for the cost of such photostats.

(A discussion was had off the record.)

Q. (By Mr. Freeman): Now, Mr. Masters, we asked that you produce, I think, Size 4 and Size 8 fittings of the kind that you manufacture of these various materials. Now, have you produced such fittings?

A. I have. I have produced fittings which I trust will serve your purpose. My reason for so

Plaintiff's Exhibit No. 12—(Continued)

(Deposition of Irvin W. Masters.)

responding is that we haven't given you exactly what you wanted or asked for, because we didn't have them. In the AN 4 size aluminium fitting with aluminum nuts and copper silicon sleeves, we have given you just what you asked for. In the 8 size we only had two complete assemblies to offer you, that is, in the AN fitting, and we have substituted a brass nut in one assembly. On the AN fittings which you requested that we supply with steel bodies and steel nuts and copper silicon sleeves, our face is red, in that our stock contained no steel nuts. We have supplied steel bodies, steel nuts and copper silicon sleeves, which we hope will do the trick. I am surprised that our stock was so short. [16]

Mr. Beehler: A question on the record. You said "steel bodies" and you meant "aluminum nuts"?

The Witness: They asked for——

Q. (By Mr. Freeman): Steel all the way through.

A. Steel bodies and steel nuts, and we are supplying not steel nuts but aluminum nuts, and copper silicon sleeves. Shall I proceed?

Q. Yes, go ahead.

A. On the 8 size AN fittings we had only stainless steel bodies and brass nuts and copper silicon sleeves. I believe you are aware that our principal business is making bodies in the shapes as a screw machine product manufacturer. On the 811 fittings

Plaintiff's Exhibit No. 12—(Continued)

(Deposition of Irvin W. Masters.)

we have only one assembly in the 8 size exactly as you asked for, because we had only had one aluminum BT8 size. There are, however, two after 8 size assemblies with cadmium plated brass nuts. On the 4 size 811 fitting we have supplied the sample as you asked for it. Peradventure you want some 4 and 8 size sleeves, as you mention them in aluminum, and there is no extra charge.

Q. Thank you, Mr. Masters, and now let me ask you if the sleeves, nuts and bodies that you have here produced are of your manufacture?

A. That is right.

Q. And when I say "your manufacture" we are talking about the defendant here, Irvin W. Masters, Incorporated. [17]

A. That is correct.

Q. And the units manufactured by your company bear the initials or the trade-mark of your company, IWM?

A. Well, either that or a squiggle, which was a registered mark. I say a "squiggle." It was the IWM run together so that it looked like a bunch of static.

Q. Then my statement is correct——

A. That is right.

Q. ——that the products that you have here produced, that is, the fittings, include your initials of your company name or a trade-mark which is the equivalent of your company?

A. I believe that is correct, yes.

Q. Now, Mr. Masters, you have carried on corre-

Plaintiff's Exhibit No. 12—(Continued)

(Deposition of Irvin W. Masters.)

spondence with other manufacturers and referred to a group of manufacturers of fittings as "Independent Manufacturers." Will you please explain to me what you mean by "Independent Manufacturers"?

A. Well, other than those in the Cleveland circle.

Q. Well, now, I am going to have to be enlightened as to what you mean by "the Cleveland circle."

A. Well, whether it is true or false, it is my belief that Parker Appliance Company and The Weatherhead Company have a—either a gentlemanly or ungentlemanly agreement, I don't know which, which we fellows out here on the Coast haven't enjoyed in the main, and that The Aircraft Fitting Company is operating under sort of an immunity from Parker's [18] infringement threats.

Q. Are you in effect saying then anyone manufacturing outside of a license under the Parker patents are companies that may be called independents?

A. That is right, rather loosely referred to, yes.

Q. Well, now, when you say "loosely referred to" you mean you loosely refer to companies other than Parker's licensees as independent?

A. That is right.

Q. And there are a lot of such industries here on the West Coast?

A. That is right.

Q. What are some of these companies that you call independent manufacturers here on the West

Plaintiff's Exhibit No. 12—(Continued)

(Deposition of Irvin W. Masters.)

Coast? Can you quickly give us the names of some of them?

A. Yes, the people I had in mind were Sanford Company, Gideon & Ramey, Pacific Piston Ring, Rogerson Engineering, Carruthers & Fernandez.

Q. Would that include the Durite Manufacturing Company? A. I don't know them.

Q. Would that include the Elmore Engineering Company?

A. I didn't have them in mind.

Q. These companies that you mentioned, you were in the manufacture of fittings ahead of those companies; is that correct? [19]

A. That is correct.

Q. In other words, they followed along as a result of the war or the demand for fittings during the war period, correct?

A. Well, I don't know how early Gideon and Ramey and Carruthers & Fernandez got into it. I am aware that Pacific Piston Ring and Rogerson Engineering were in it during the war.

Q. And got into it after you had already started the manufacture of fittings?

A. That is correct. Lest some misunderstanding or twist might be given to my testimony as to not having Elmore Engineering in mind, Elmore was a subcontractor of ours during the early part of the war.

Q. A subcontractor of the fittings of the kind here involved? A. That is right.

Plaintiff's Exhibit No. 12—(Continued)

(Deposition of Irvin W. Masters.)

Q. And they made fittings of the kind that you have here produced, of that general makeup?

A. That is correct.

Q. It is true that you had a meeting of the so-called independent manufacturers at the Jonathan Club in the middle of January, 1948; correct?

A. It is true we had a meeting. I don't recall the date.

Q. That was shortly after suit was filed in [20] this case; correct?

A. I presume that is correct. I do not have an independent recollection of the dates.

Q. It is true that you wrote letters to customers and prospective customers that the independent manufacturers were going to support you financially?

A. That is right.

Q. And it is true that when you in such letter referred to independent manufacturers you were then talking about the companies that were not Parker licensees?

A. That is correct.

Q. And you were then talking about companies the names of which you gave us just a few minutes ago?

A. That is right.

Q. I do not recall whether you mentioned the name Collins Engineering Company as one of the so-called independents?

A. I did not, but it is true that they were at the meeting referred to.

Q. The letter that you sent out with respect to

Plaintiff's Exhibit No. 12—(Continued)

(Deposition of Irvin W. Masters.)

being supported financially, that was a form letter, was it not? A. That is correct.

Q. And it was sent to many of the users of aircraft fittings of the Parker type; correct?

A. That is correct. [21]

Q. And you have a copy of the letter that you sent out, the form letter dated January 19, 1948?

Mr. Beehler: I object to the question as being entirely immaterial to the issues, and I direct the witness not to answer.

Mr. Freeman: Will you agree with me, Mr. Beehler, permit me to ask that same question for a ruling on the part of the court during the trial?

Mr. Beehler: Surely.

Q. (By Mr. Freeman): Did you, in fact, receive any financial support from any of these so-called independents?

Mr. Beehler: I object to the question on the same grounds as stated before, and direct the witness not to answer.

Mr. Freeman: And with the same understanding?

Mr. Beehler: Yes, sir.

Q. (By Mr. Freeman): Did you have any correspondence with The Kohler Company of Kohler, Wisconsin, with respect to soliciting financial support?

Mr. Beehler: Same objection and same direction.

Q. (By Mr. Freeman): I am going to ask you, Mr. Masters, to produce a copy of the form letter

Plaintiff's Exhibit No. 12—(Continued)

(Deposition of Irvin W. Masters.)

that you sent out on January 19, 1948, and particularly the letter that you sent at or about the same time to The Kohler Company of Kohler, Wisconsin, and the reply you received from The Kohler Company.

Mr. Beehler: Same objection and same direction. [22]

Mr. Freeman: And with the same understanding?

Mr. Beehler: That is true.

Q. (By Mr. Freeman): I am going to ask you, Mr. Masters, what you meant in your letter of January 19, 1948, the form letter, wherein you stated "We are writing you to call your attention to the necessity of certain action on your part if you do not want to return to the old condition where you were dependent upon a single source or sources controlled by a single producer of tube fittings"?

Mr. Beehler: I want to object to that on the ground that there has been no such letter produced, and direct the witness not to answer, and, in any event, it calls for an opinion and not a question of fact.

Q. (By Mr. Freeman): You recall including such a paragraph in a letter you wrote on January 19, 1948?

Mr. Beehler: I object to the question as entirely immaterial, and direct the witness not to answer.

Q. (Mr. Freeman): I am going to ask you

Plaintiff's Exhibit No. 12—(Continued)

(Deposition of Irvin W. Masters.)

again what you meant when you said that "there was the necessity of certain action"? I want to know what you meant by "certain action"?

Mr. Beehler: Same objection and same direction.

Q. (By Mr. Freeman): I am also going to ask you if you recall in your letter of January 19, 1948, writing "We are being supported financially and otherwise in this defense by a number of fitting manufacturers"? Do you recall, first, such a sentence in the letter of January 19, 1948? [23]

Mr. Beehler: Same objection and same direction.

Q. (By Mr. Freeman): You refuse to answer?

A. I refuse.

Q. Mr. Masters, I hand you a letter which purports to have a signature thereon, and I will ask you to state whether or not that is your signature?

Mr. Beehler: I object to the introduction of the letter on the ground it is immaterial.

Mr. Freeman: I haven't introduced it. You can wait a moment. I am just asking him whether it is his signature.

The Witness: It is my name. That is not my signature.

Q. (By Mr. Freeman): Do you recognize it as the signature of your secretary?

A. Yes, that was sent out of our place all right.

Q. And it was sent out by the Irvin W. Masters, Inc., the defendant here? A. That is right.

Q. And it is a letter consisting of two pages, the

Plaintiff's Exhibit No. 12—(Continued)

(Deposition of Irvin W. Masters.)

first page of which is on the letterhead of the Irvin W. Masters, Inc.; correct?

A. What about it, Mr. Lawyer?

Mr. Beehler: You may answer.

The Witness: Yes, that is right.

Q. (Mr. Freeman): The form letters that you sent out under date of January 19, 1948, were in the form and words and figures as illustrated on the letter that I have just handed [24] you, which you have identified as used by the defendant here, Irvin W. Masters, Inc.?

A. That is right.

Q. I now ask you whether or not letters of that kind were sent out with your authority and under your direction?

A. Yes, they were.

Q. And the letters of that kind were dictated by yourself?

A. That is right.

Q. And you likewise designated the names of the customers or prospective customers or manufacturers to whom such letter was to be sent?

A. Yes, I had knowledge of where they went to.

Mr. Freeman: I am going to ask the notary to merely mark the two sheets of the letter of January 19, 1948, with his initials and the date, so that the same may be offered in evidence during the trial, unless Mr. Masters produces the copies which were heretofore requested.

(Document marked as requested by the Notary Public.)

Q. (By Mr. Freeman): Now, Mr. Masters, with the letter in front of you which has just been initialed

Plaintiff's Exhibit No. 12—(Continued)
(Deposition of Irvin W. Masters.)

by the reporter I am going to call your attention to the paragraph that I quoted in full a few minutes ago, and then I ask you what you meant by "dependent upon a single source or sources controlled by a single producer of tube fittings," and I ask you whether [25] you again refuse to answer?

Mr. Beehler: I again object on the ground that it is immaterial; that the document speaks for itself, if admitted, and that it calls for a conclusion of the witness and not a fact, and I direct him not to answer.

Q. (By Mr. Freeman): Well, will you tell me what you meant by the phrase in the letter "We are being supported financially and otherwise in this defense by a number of fitting manufacturers," and I am particularly interested in the terms "otherwise."

Mr. Beehler: Same objection and same direction.

Q. (By Mr. Freeman): Do you likewise, Mr. Masters, refuse to answer, now that you have the letter in front of you which has been initialed by the reporter, and which you have identified as being sent out by your company under your direction?

A. By direction of counsel I am refusing.

Q. I am going to ask you what you meant in this letter when you said "It is, of course, legitimate for you to keep your costs down by buying such material, but how long do you think the prices will stay down after the independent producers of fittings have been eliminated"?

Plaintiff's Exhibit No. 12—(Continued)
(Deposition of Irvin W. Masters.)

Mr. Beehler: Same objection and same direction.

Q. (By Mr. Freeman): And I take it when you refer to "independent producers of fittings" in your letter of January 19, 1948, you were referring to those outside of [26] the Parker Company licensees; correct?

Mr. Beehler: Same objection and same direction.

Q. (By Mr. Freeman): Do you likewise refuse to answer? A. I do.

Q. I am going to ask you, Mr. Masters, did you send any other letters subsequent to January 19, 1948, to the trade with respect to Parker Company's patents?

Mr. Beehler: I object to that on the ground it is immaterial to the issue, and I direct the witness not to answer.

Q. (By Mr. Freeman): Do you likewise refuse to answer, Mr. Masters? A. I refuse.

Q. And do you refuse on the instructions of your attorney? A. That's correct.

Q. Did you send any letter to Republic Aviation Corporation, attention its purchasing agent, with respect to the pending litigation?

Mr. Beehler: I object to that on the same grounds and make the same direction.

Q. (By Mr. Freeman): I am going to ask you again, Mr. Masters, if it is not a fact that on April 27, 1949, you, on the letterhead of the Masters Company, that is, Irvin W. Masters, Inc., and signed

Plaintiff's Exhibit No. 12—(Continued)

(Deposition of Irvin W. Masters.)

by yourself as president of that company, addressed a letter to Mr. Larry Cunningham, [27] Purchasing Agent, Republic Aviation Corporation, Farmingdale, Long Island, New York, all with respect to the infringement suit here pending?

Mr. Beehler: Go ahead.

The Witness: I did.

Q. (Mr. Freeman): Again I am going to ask you what you meant in this letter where you said "If such is the case, we believe it to the best interests of the Republic Aviation Corporation and the entire aviation industry, to give consideration to the fact that anything which contributes to the re-establishment of the Parker fitting monopoly will contribute to the old situation of long delays in the procurement of fittings, and where high prices in general existed"?

Mr. Beehler: I am going to object on the ground the document, if admitted, speaks for itself.

Q. (Mr. Freeman): Now, Mr. Masters, will you answer my preceding question?

A. As directed by my counsel I will decline to answer on that.

Q. I did not understand your counsel to advise you not to answer. He merely objected to the letter as speaking for itself.

Mr. Beehler: I direct him not to answer.

Q. (By Mr. Freeman): What was the occasion of writing the letter of April 27, 1949, and for your convenience I am going [28] to give you a copy of it to refresh your memory.

Plaintiff's Exhibit No. 12—(Continued)

(Deposition of Irvin W. Masters.)

Mr. Beehler: I again object on the ground of immateriality, and I direct the witness not to answer.

Q. (By Mr. Freeman): I am going to ask you, Mr. Masters, if you refuse to answer my last question?

A. I do, as directed by counsel.

Q. Will you produce the carbon copy of the letter of April 27, 1949, which is addressed to Republic Aviation Corporation?

Mr. Beehler: I object to the production unless ordered to do so by the court.

Q. (By Mr. Freeman): You do recall definitely sending such a letter to Mr. Larry Cunningham, Purchasing Agent, Republic Aviation Corporation, under the date of April 27, 1949, do you not?

A. Yes.

Q. Now, what was the occasion of writing that letter?

Mr. Beehler: Same objection and same instruction as before.

Q. (By Mr. Freeman): It is a fact that at the time you wrote the letter on April 27, 1949, there was then pending a scheduled date for the taking of depositions on the part of Parker Appliance Company in New York City?

A. That is right.

Q. And likewise at that time you knew that the depositions to be taken were of witnesses who were

Plaintiff's Exhibit No. 12—(Continued)

(Deposition of Irvin W. Masters.)

employed [29] by and under the control of Republic Aviation Corporation? A. Shall I answer?

Mr. Beehler: Yes, go ahead.

The Witness: Yes, that is right.

Q. (By Mr. Freeman): I am going to ask you what you meant when you said in your letter "We assume that these depositions being taken at the instance of The Parker Appliance Company are calculated to be beneficial to the case of The Parker Appliance Company"?

Mr. Beehler: I object to that on the ground the letter speaks for itself and the question calls for a conclusion of the witness, and direct him not to answer.

Q. (By Mr. Freeman): Do you refuse to answer, Mr. Masters? A. I do.

Q. What did you mean by "beneficial to the case of The Parker Appliance Company"?

Mr. Beehler: Same objection and same direction.

Q. (By Mr. Freeman): And likewise you refuse to answer? A. Yes.

Q. And I take it that when you said "beneficial" or used the term "beneficial" you meant that to be synonymous to help The Parker Appliance Company?

Mr. Beehler: Same objection and same direction.

Q. (By Mr. Freeman): And you likewise refuse to answer? A. Yes.

Q. You do have the copy of the letter that you

Plaintiff's Exhibit No. 12—(Continued)

(Deposition of Irvin W. Masters.)

sent [30] to Republic Aviation Corporation under date of April 27, 1949, in your company's file?

A. I think so.

Q. You refuse to produce it unless ordered by the court so to do; correct?

A. As directed by counsel, yes.

Q. When you say "directed by counsel" you mean counsel here present as of today?

A. Yes, sir.

Mr. Freeman: I offer in evidence, in behalf of The Parker Appliance Company, a copy of the Irvin W. Masters, Inc., letter of April 27, 1949, to Republic Aviation Corporation as Plaintiff's Exhibit 10.

(Letter referred to was marked by the Notary Public as Plaintiff's Exhibit 10, and thereupon returned to counsel.)

Mr. Beehler: I make my objection here to the presentation of the letter as an exhibit on the grounds that it is irrelevant and immaterial.

Q. (By Mr. Freeman): Mr. Masters, is it true that in addition to the letters that you have written of the kind referred to here, dated January 19, 1948, and April 27, 1949, that you asked a publication house to publish a paid advertisement with respect to the Parker patent?

A. May I answer on that?

Mr. Beehler: Yes. [31]

The Witness: Without referring to the edition

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too, it is true that I sought to have published in Aero Digest a letter stating our situation, which they declined to do, because Parker Appliance Company spent more money with them than we did.

Mr. Freeman: I move that the last part of that answer "because Parker Appliance Company spent more money," and so forth, be stricken as not responsive.

Q. Do you have a copy of the proposed advertisement in Aero Digest in your files?

A. I presume we do, Mr. Freeman.

Q. Will you produce it?

Mr. Beehler: I object to the production of it unless ordered to do so by the court, on the ground that it is immaterial.

Q. (By Mr. Freeman): Did you have any correspondence with Aero Digest wherein they refused to publish the ad?

A. No, I don't believe I did. I think that that information was reported to me very adroitly by their local representative verbally.

Q. Now, just tell us what the information was that was conveyed to you by the local representative of Aero Digest?

A. Well, when I presented the letter for publication in the first place I told Mr. Galloway I didn't believe his company would publish it, it was so controversial, and he [32] urged me to present it, as Tichenor, the publisher and editor of Aero Digest, was noted for going to bat on such things.

Plaintiff's Exhibit No. 12—(Continued)

(Deposition of Irvin W. Masters.)

When Mr. Galloway reported that they could not accept the advertisement he stated that Aero Digest had gotten down to a pretty thin size, and Tichenor's bread and butter was pretty much in jeopardy, and got his ears beaten back a good many times, and he thought it was indiscreet to publish it, notwithstanding his sympathies.

Q. Will you give us Mr. Galloway's full name and address, if you can?

A. I don't know Mr. Galloway's address. He has an office here in Los Angeles. If I might look at a telephone book I could identify it. (Telephone book handed to the witness.) "James C. Galloway, Publisher's Representative, 816 West Fifth Street, Los Angeles."

Q. Mr. Masters, you do manufacture your sleeves of the fittings that you have here produced so that there is a taper on the outside wall of each sleeve?

A. Well, we have manufactured those sleeves, when we did manufacture them, in accordance with the Army and Navy Standards, and those Standards did specify a taper on the head of the sleeve you are talking about.

Q. When you talk about the head of the sleeve, that is the nose end or the end that engages the base of the flare; correct?

A. Well, you said the outside. Where it engages the [33] base of the flare is on the inside of the sleeve.

Q. I am asking whether it isn't a fact that the

Plaintiff's Exhibit No. 12—(Continued)

(Deposition of Irvin W. Masters.)

portion of the sleeve which engages the flare close to the base of the flare is in fact of less diameter than the remainder of the portion of the sleeve? Do you follow my description?

A. It engages on the inside of the sleeve. Your question is confusing to me, Mr. Freeman. You said "taper on the outside of the sleeve," and then you ask where it engages the flare. The engagement between the sleeve and flare is, I believe, on the inside of the sleeve.

Q. I was just referring to what I might call the nose end of the sleeve. In other words, the diameter of the sleeve at the point which engages the flare of the tube is of less diameter than the portion of the sleeve which engages the nut shoulder?

A. If I understand you correctly, it is true that since the early part of the war, I don't know, I believe possibly 1942 or along thereabouts, the AN drawings were made to show, and also the 811 drawings were made to show a slight tapering on the outside of the large diameter of the sleeve. The diameter at the end closest to the—the outside diameter of the end closest to the flare was slightly less by reason of a one degree taper, I believe, in the sleeve. [34]

Q. And when your company manufactures sleeves you do provide that taper on the outside surface of the sleeve? A. That is right.

Q. And I take it also that your company manufactures sleeves with a double angle on the outside

Plaintiff's Exhibit No. 12—(Continued)

(Deposition of Irvin W. Masters.)

of the sleeve which engages the outside of the flare?

A. Where such a double internal angle is specified in the drawings we do, yes.

Q. Now, the first form of sleeve that I asked you about is substantially as illustrated in Plaintiff's Exhibit No. 2; correct?

A. Yes, that is right.

Q. Then the second form, where I asked you about a double angle on the inside of the sleeve, or the nose end of the sleeve which engages the flare, it is substantially as illustrated in Plaintiff's Exhibit 8; correct?

A. That's right.

Q. You manufacture sleeves of both kinds, that is, as exemplified by Plaintiff's Exhibit 2 as well as Plaintiff's Exhibit No. 8?

A. That's right.

Q. Did I understand you to say that you followed the AN or the 811 drawings with respect to angles and measurements in the manufacture of sleeves?

A. That is right, we follow both of them, according to the procurement specifications. [35]

Q. I said "sleeves," and that, of course, goes for nuts and bodies?

A. That is right, we always manufactured them according to the Government drawings.

Q. Did you do any independent research or engineering with respect to the various angles or dimensions used on the AN fittings or the 811 fittings?

Plaintiff's Exhibit No. 12—(Continued)
(Deposition of Irvin W. Masters.)

A. Will you define what you mean by "independent"?

Q. Well, did you arrange for the outside angle on the sleeve, did you do that, or did you merely manufacture that which was illustrated in the drawings, which engineering was done by someone else?

A. No, I never discovered it until this trial came up.

Q. You did follow the drawings, though?

A. Sure, that's right.

Q. And you now know that you have manufactured and are manufacturing sleeves with an angle on the outside of the sleeve?

A. That is right.

Q. And you now know that you have manufactured and are manufacturing sleeves with double angles on the inside?

A. Well, I knew that from the outset of the changes that were instituted at Douglas.

Q. And you followed along with those changes?

A. That is right. [36]

Q. You did not independently do any engineering with respect to the double angle, did you?

A. No.

Q. Did you maintain an engineering department, including draftsmen, design engineers?

A. Yes.

Q. But in connection with the three piece fittings of the kind we have here you merely made those to the measurements and specifications of the AN and 811 drawings?

Plaintiff's Exhibit No. 12—(Continued)

(Deposition of Irvin W. Masters.)

A. Except where we occasionally found discrepancies which we reported to the appropriate Government agencies that took them under consideration and——

Q. However, with respect to the outside angle on the sleeve you merely followed the drawing specifications?

A. That is right.

(A short recess was here taken.)

Q. (By Mr. Freeman): These drawings that you have handed me in duplicate, marked "Active," those are the drawings from which you have manufactured and now manufacture fittings, sleeves and bodies?

A. That is right.

Q. Nuts, bodies and sleeves, collectively referred to as fittings?

A. That is right.

Mr. Freeman: Just for convenience I am going to ask the reporter to initial and date each of the drawings, at [37] least one set.

(Documents were marked as directed by the Notary Public.)

Mr. Freeman: That will be all.

Mr. Beehler: No cross-examination.

Mr. Freeman: With respect to the witness waiving signature, will you waive your signature, Mr. Masters?

Mr. Beehler: Yes, we can do that.

Mr. Freeman: I want to make it appear that Mr. Masters waives his signature.

The Witness: O. K. [38]

Plaintiff's Exhibit No. 12—(Continued)

State of California,

County of Los Angeles—ss.

I, W. E. McClure, a Notary Public within and for the County of Los Angeles and State of California, do hereby certify:

That prior to being examined the witness named in the foregoing deposition, Irvin W. Masters, was by me duly affirmed to testify the truth, the whole truth, and nothing but the truth; that the said deposition was taken down by me in shorthand at the time and place therein named, and thereafter reduced to typewriting under my direction.

I further certify that it was stipulated by and between counsel that the signature of the witness to the said deposition be waived, and that it shall possess the same force and effect as though read and signed by the said witness.

I further certify that I am not interested in the event of the action.

Witness my hand and seal this 17th day of July, 1949.

[Seal] /s/ W. E. McCLURE,
Notary Public in and for the County of Los Angeles,
State of California.

Received in evidence June 14, 1950.

PLAINTIFF'S EXHIBIT No. 13

In the District Court of the United States,
Southern District of California, Central Division

Civil Action No. 8023-W

THE PARKER APPLIANCE COMPANY,
Plaintiff,

vs.

JOSEPH C. COLLINS, Doing Business Under
Firm Name and Style of Collins Engineering
Co., Hollywood, California,
Defendant.

NOTICE OF TAKING DEPOSITIONS

To: Vernon D. Beehler, counsel for Defendant,
Joseph C. Collins

Please Take Notice that the Plaintiff, The Parker Appliance Company, by its attorneys, Bair & Freeman, will take the deposition of the party Defendant, Joseph C. Collins or his agent. The deposition will take place at 10:30 a.m. on July 12, 1949, at the offices of Lyon & Lyon, 811 West Seventh Street, Los Angeles 14, California, before an officer duly authorized by law to take depositions.

Plaintiff's Exhibit No. 13—(Continued)

You may attend and cross-examine if you see fit to do so.

LYON & LYON,
/s/ CHARLES G. LYON,
Attorneys for Plaintiff.

Of Counsel:

/s/ WILL FREEMAN,
/s/ W. M. VAN SCIVER,

June 28, 1949.

Proof of service attached.

[Title of District Court and Cause.]

Civil Action No. 8023-W

Deposition of Joseph C. Collins, taken on behalf of plaintiff, at Suite 800, 811 West 7th Street, at the offices of Lyon & Lyon, Los Angeles, California, at 10:30 o'clock a.m., July 12, 1949, before W. E. McClure, a Notary Public within and for the County of Los Angeles and State of California, pursuant to the annexed notice of taking depositions.

Appearances of Counsel:

LYON & LYON, ESQS.,
CHARLES G. LYON, ESQ.,

BAIR & FREEMAN, ESQ.,
WILL FREEMAN, ESQ.,

For plaintiff.

VERNON D. BEEHLER, ESQ.,
For defendant.

Plaintiff's Exhibit No. 13—(Continued)

JOSEPH C. COLLINS

having been duly affirmed, testified as follows:

Direct Examination

By Mr. Freeman:

Q. You are Joseph C. Collins? A. I am.

Q. And the proprietor of the Collins Engineering Company, the defendant in this case?

A. Yes, I am.

Q. That is a sole business, that is, you own and operate the business in its entirety?

A. Right.

Q. What is the business of the Collins Engineering Company? A. We supply aircraft parts.

Q. Do you manufacture aircraft parts?

A. No, we don't manufacture them.

Q. You sell aircraft parts?

A. We sell aircraft parts.

Q. And by "aircraft parts" I assume we can refer to those parts as fittings?

A. They are one of the items that we sell.

Q. Those are three-piece fittings?

A. No, they are just individual fittings. [2*]

Q. But you do sell nuts, bodies and sleeves that make up three-part fittings?

A. Yes, we sell them individually.

Q. Now, when was the Collins Engineering Company organized?

A. Approximately February of 1941.

* Page numbering appearing at top of page of original Reporter's Transcript of Record.

Plaintiff's Exhibit No. 13—(Continued)
(Deposition of Joseph C. Collins.)

Q. When did you start the sale of fittings?

A. I believe it was about a year later.

Q. You are familiar with the fittings generally known as the Parker type fittings?

A. Yes, I am.

Q. When did you commence the manufacture of such fittings?

A. Approximately about—if my memory serves me right, about a year after we formed our company, and that was about, around February of 1942, I think.

Q. A moment ago you said that you sold fittings as distinguished from manufactured, as distinguished from the manufacturing of fittings. It is true that when you started in the fitting business in 1942 you then manufactured your own fittings?

A. Yes, that is correct.

Q. And you continued manufacturing fittings up until about the close of the war?

A. Up until about the close of the German phase of the war. That was about 1944. [3]

Q. Thereafter you disposed of your equipment, that is, screw machines and machines of that kind for the manufacture of fittings, and had your fittings manufactured for you?

A. That is correct.

Q. It is true that you use a good many shops throughout the Los Angeles area for the manufacture of the component parts that make up fittings?

A. That is correct.

Plaintiff's Exhibit No. 13—(Continued)
(Deposition of Joseph C. Collins.)

Q. Now, in the fittings that you manufactured in 1943 and 1944 in your own plant, they, in fact, do not differ from those that you are now selling?

A. Fundamentally not. There is some print changes but—

Q. So that the difference in the Collins Engineering setup, which difference took place, as you say, along the year 1944, was one of manufacture and sale of the fittings prior to 1944, and sale of the fittings after 1944? A. That is correct.

Q. And when I use the year 1944 I am just picking that out as sort of a dividing line. We are not setting forth any specific date.

Mr. Collins, did you bring with you the blueprints and drawings or photostats of drawings which were requested by way of a motion filed in the Federal Court here some week or so ago? [4]

A. I brought with me as much as I could obtain. We make our fittings from the AN Standards, the various prints that come out of Wright Field, and I had duplicated on our duplication machine the AN Standards of the sizes and the nomenclatures of the fittings that you requested. I believe we have them all.

(A discussion was had off the record.)

Q. (By Mr. Freeman): Now, Mr. Collins, will you just produce whatever drawings you have been able to locate up to the present time, and I understand that you have been unable to locate some of the drawings; that is correct, is it not?

Plaintiff's Exhibit No. 13—(Continued)
(Deposition of Joseph C. Collins.)

A. No, we have brought in all of the drawings we possibly can. These are the only obtainable drawings from our records at the present time, because these are the drawings that we now use to check our fittings, but—in other words, under the particular paperwork we received, this motion for producing of the documents there, it called for, I believe, all of the various deviations that these fittings have gone through throughout the years of 1940 to 1949. Well, when we get a new print from Wright Field all old prints are automatically destroyed by our inspectors, due to the fact we do not want an old or obsolete print around any more, because they might thereby receive into the plant an obsolete fitting. So we brought in all the up-to-date AN Standards, but I would have to try to write to Wright Field and ask them if they could give me all the old prints. [5] For instance, the 819 series that you requested has been revised once, twice—has been revised nine times. I can't give you the nine revision papers from Wright Field on this part, because I don't have them.

Q. So that we might straighten it out, and I only want that which you have: In 1942 and 1943, when you were doing your own manufacturing, did you have manufacturing drawings or shop drawings?

A. I had the AN prints.

Q. As furnished to you by Wright Field?

A. Yes.

Plaintiff's Exhibit No. 13—(Continued)
(Deposition of Joseph C. Collins.)

Q. Did you ever have any drawings furnished to you by The Parker Appliance Company?

A. Not to my knowledge.

Q. In your own shop manufacture I understand that you used only the drawings which were furnished to you by Wright Field, or AN drawings?

A. Yes, or possibly the airframe manufacturer might have sent me a print of a certain part, and I manufactured it according to their print.

Q. I understand then that you do not have any of the drawings that were used in 1942 and 1943 unless the drawings that you have here were likewise then used?

A. That is my best knowledge and belief, yes.

Q. Now, so far as your own files are concerned, and I am not asking you to go out and shop for drawings in other [6] plants, but so far as your own files are concerned you have here produced all of the drawings you have available?

A. That is correct.

Q. And as called for by the motion?

A. Correct, any drawings that I might have at my plant would only be a duplicate of these drawings here.

Mr. Freeman: Now, if I may have the sets that you have prepared, I will appreciate it.

Mr. Beehler: Off the record.

(A discussion was had off the record.)

Q. (By Mr. Freeman): Mr. Collins, are you telling us now that the drawings that you have here

Plaintiff's Exhibit No. 13—(Continued)
(Deposition of Joseph C. Collins.)

handed me are the shop drawings that were used for manufacture?

A. Yes, those are duplicates of the shop drawings that we would duplicate and hand to a machinist during the years which we were manufacturing fittings.

Q. In other words, while you operated your own plant the drawings that you have here handed me were the kind that you used, and used as shop manufacturing drawings?

A. Yes. Anything that we would have would be an exact duplicate of this drawing here.

Q. Now, I recognize that what you have handed me may be used for inspection of parts and not for the manufacture of parts. However, your testimony is that these are the only drawings that you used and that they were used as shop manufacturing drawings? [7]

A. That is correct. Any shop drawing that we have in addition to these would be the information that was taken directly off of this sheet and duplicated and placed on another sheet, but it would be identical with this sheet here.

Q. Did you have your own drafting department?

A. During the war, yes.

Q. Now, when you want an 819 sleeve made do you furnish a print of the kind that is here shown marked "AN819" to the screw machine shop?

A. Not as a rule, no. Generally he knows the part and he has his own prints.

Plaintiff's Exhibit No. 13—(Continued)

(Deposition of Joseph C. Collins.)

Q. You inspect the parts that come to your plant? A. Yes, we do.

Q. What do you use by way of inspection drawings?

A. We use these drawings here, the AN Standards.

Q. And your inspection is always done against the so-called Government AN drawings?

A. Yes, the latest spec.

Mr. Freeman: So that the record is complete, you have handed me drawings No. AN819, drawings No. AN804, drawings No. AN-D 10056, drawings No. AN816, Drawings No. AN818, and I am going to ask the reporter to put his initials and the date on the back of one set of the drawings.

(Documents were marked as requested by the Notary Public.) [8]

Q. (By Mr. Freeman): Now, these sheets you have handed me are what are sometimes called dimension sheets?

A. Yes, I believe they would be called dimension sheets. I have never heard that name before, but that is what no doubt they are.

Q. Are you an engineer, Mr. Collins?

A. No, I am not.

Q. You are a member of the Bar?

A. I am a member of the Bar.

Q. Of the California Bar?

A. California Bar.

Plaintiff's Exhibit No. 13—(Continued)
(Deposition of Joseph C. Collins.)

Q. Have you at any time practiced law?

A. No, not actively.

Q. Although you are a member in good standing at the present time? A. In good standing.

Q. Now, the motion also requested that you produce any literature or catalogs used by your company from the years 1940 on to date, and you having started in 1942 I would like to have any catalogs that you have for the period of your operations.

A. We researched, and here is our prior catalog and this is our most recent catalog.

Mr. Freeman: Now, the one that you have referred to as your "prior catalog" I am going to ask the reporter to mark for identification as Plaintiff's Exhibit 11. [9]

(Document referred to was marked by the Notary Public as Plaintiff's Exhibit 11 for identification, and thereupon returned to counsel.)

Mr. Freeman: And the one that you have referred to as the "more recent"—

The Witness: Yes, that is it.

Mr. Freeman: —I am going to ask the reporter to mark it as Plaintiff's Exhibit 12 for identification. It is understood, Mr. Beehler, we can offer these later without any further proof?

Mr. Beehler: That is right.

(Document referred to was marked by the Notary Public as Plaintiff's Exhibit 12 for

Plaintiff's Exhibit No. 13—(Continued)
(Deposition of Joseph C. Collins.)

identification, and thereupon returned to counsel.)

Q. (By Mr. Freeman): Now, Mr. Collins, you referred to your earlier catalog which has been marked for identification as Plaintiff's Exhibit 11. Can you tell me about when that was published?

A. I would say about—I believe about a year to 18 months ago.

Q. In other words, along in 1947?

A. I think it would be more in '48.

Q. How about Plaintiff's Exhibit 12 for identification, when was it published? [10]

A. It was published about three months ago.

Q. Do I understand then that you have no catalogs of any kind, or literature with respect to AN fittings, tube couplings of the kind here involved for the years 1942 up until about 1948?

A. We searched for any such catalogs and we could not find any.

Q. In other words, you have no file copies, no vault copies, nor any copies of catalogs put out prior to 1948?

A. Well, this one is such a copy, but——

Q. By "this one" you are referring to Plaintiff's Exhibit 11 for identification; correct?

A. Correct, but beyond that we could find none.

Q. Did you put out any circulars with respect to AN fittings prior to the catalog Plaintiff's Exhibit 11?

Plaintiff's Exhibit No. 13—(Continued)
(Deposition of Joseph C. Collins.)

A. No, I don't believe we have ever put out any circulars.

Q. In other words, you have here produced all the literature you have in your files with respect to catalogs, circulars or publications having to do with AN fittings, and the answer is you have found none until about 1948?

A. That is correct.

Q. You did, however, have some catalog publications in 1947, 1946 and 1945, did you not?

A. Yes, we had. I recall one before this one here.

Q. And "before this one here," you are referring to [11] Plaintiff's Exhibit 11?

A. Before Exhibit 11 we had one, and I don't think we had any prior to that time, any catalog. The one before this was our first catalog.

Q. You started into the manufacture of fittings because of the war, did you not?

A. Yes, I would say yes.

Q. And you continued substantially your own manufacturing operations until about the close of the war?

A. Until about the close of the German phase of the war.

Q. Can you give me the names of some of your present suppliers of fittings?

A. Pacific Screw; Deutch—how many did you want, Mr. Freeman?

Q. Oh, I would like some of the others. You know there are quite a few of them.

Plaintiff's Exhibit No. 13—(Continued)
(Deposition of Joseph C. Collins.)

A. There is one company by the name of Durite; Bird——

Q. That Durite is Durite Manufacturing Company of Santa Monica, California?

A. Yes, and Bird, I think he calls himself Bird Aircraft.

Q. Where is he located?

A. He is out in the Valley.

Q. San Fernando? A. Yes. Glendale. [12]

Q. You likewise buy from the Elmore Engineering Company? A. Yes, we do.

Q. They are located at Alhambra?

A. Alhambra.

Q. Do you buy from the Airdrome Products, Inglewood, California? A. Yes, we do.

Q. Do you buy from the Indus Manufacturing Company?

A. No, I don't think—I know we don't buy from them.

Q. Do you buy from the Parus Manufacturing Company? A. No, we don't buy from them.

Q. Inglewood, California? A. No.

Q. Might that be the Parts Manufacturing Company? A. Oh, yes, P-a-r-k-s, Parks.

Q. At Inglewood, California?

A. Yes, it is very close, he is in there somewhere.

Q. In the Los Angeles area?

A. Yes, in the Los Angeles area.

Q. Do you likewise purchase from Carruthers & Fernandez?

Plaintiff's Exhibit No. 13—(Continued)
(Deposition of Joseph C. Collins.)

A. Yes, we do; very, very little, but we have purchased from them.

Q. Do you ever buy from a Victor Pastushin Industries?

A. No, I know him, but we don't buy any fittings from [13] him.

Q. Have you bought any fittings from Al Lama-trice at Wilmar, California?

A. Yes, we have.

Q. Now, are there any others?

A. You have covered them pretty well. I don't for the moment, recall any more. I personally don't handle that particular phase of our company, so——

Q. Who is your agent or representative, or the man in charge for the purchase of fittings?

A. That is Glenn Stillwell, he is the one.

Q. That is S-t-i-l-l-w-e-l-l? A. Right.

Q. And is he your authorized agent and representative? A. Yes.

Q. And he speaks for you in connection with the purchase of fittings? A. Yes.

Q. Now, the fittings that you purchased from the Durite Manufacturing Company, it is true that you buy from them the nuts, sleeves and the bodies?

A. Well, I don't know what we buy from Durite. I don't know what particular fittings that he manufactures. I know we buy fittings from him, but just which ones I would have to look up purchase orders to find that out. [14]

Q. Is that likewise true with respect to these

Plaintiff's Exhibit No. 13—(Continued)

(Deposition of Joseph C. Collins.)

other names that you have mentioned, those suppliers of you, that you buy nuts, bodies and sleeves from them?

A. Yes, it is. Certain ones manufacture certain fittings to a better ability than other type of fittings, so that they become specialists in certain types, so——

Q. You then sell the complete unit, the three component parts to the aircraft manufacturers?

A. No, we don't. We sell the individual fitting to whoever will buy it. We sell no assemblies whatsoever.

Q. But you do sell in the same order nuts, sleeves and bodies?

A. Not necessarily at all. We might just sell one sleeve or a thousand sleeves. We might sell one nut by the same purchase order.

Q. Are you telling me you have never sold nuts, sleeves and bodies in the single order or in the single billing?

A. That is correct, never—we have never sold an assembly in the history of our company.

Q. You have sold nuts, sleeves and bodies to aircraft manufacturers for complete use, have you not?

A. What they do with them, Mr. Freeman, after we sell them the component parts I don't know.

Q. You do sell the component parts that go to make up the complete fitting? [15]

A. Yes, we do.

Q. And you sell them to the same purchaser?

Plaintiff's Exhibit No. 13—(Continued)
(Deposition of Joseph C. Collins.)

A. At times we do.

Q. Now, do you know the name of the individual that you have had your business dealings with at Durite?

A. His name is Irv.

Q. Withekan, W-i-t-h-e-k-a-n?

A. I don't know what his name is. Irv. I-r-v, I know him by that. He is sales—I don't know what his last name is.

Q. Do you know a Mr. Curtis there?

A. Curtis?

Q. Yes. A. At Durite?

Q. Yes.

A. I frankly do not know him personally. No, I don't know if he works there or not.

Q. Do you know a Mr. Russell there?

A. No, I don't know him.

Q. Now, when you want to have that company, and let's take Durite by way of example, manufacture nuts, bodies and sleeves for you what do you furnish that company?

A. Well, we—it is according to whether—if it is a straight part invariably they supply us the complete part. We supply them nothing.

Q. Well, do you supply them with [16] drawings?

A. No.

Q. In other words, you just issue a purchase order?

A. We issue a purchase order.

Q. And you say you want part No., by way of example, AN818?

A. Right.

Plaintiff's Exhibit No. 13—(Continued)
(Deposition of Joseph C. Collins.)

Q. Do you furnish them with inspection drawings or shop drawings?

A. No, they supply us the parts and we inspect the parts when they come there.

Q. All you put down is the size?

A. The size and the material that we want them made from.

Q. Do you give certificates to your purchasers as to the material that goes into the various fittings?

A. In some instances we do.

Q. Now, do you make an inspection of that, or do you receive a certificate from your supplier or your manufacturer as to the material that go into the fittings?

A. When we buy any steel or have any forgings made we get a proper certification from our supplier.

Q. Well, now, when you say "forgings" or "steel," do I understand that you buy the forgings and the steel and then have one of these shops manufacture the sleeves, nut and bodies from such forgings and from such steel, or do they buy their own steel and make their own forgings? [17]

A. Well, on the—Mr. Freeman, always adding "nuts, sleeves and bodies" you complicate the explanation. If they are making a body for me I, as a rule—that is, a shape, what they call a shape—I supply as a rule the forging itself, but if it is a nut or sleeve, in most instances they supply their

Plaintiff's Exhibit No. 13—(Continued)

(Deposition of Joseph C. Collins.)

own material, because they can buy it as well as I can.

Q. Then do you get from these manufacturers certificates as to the material used?

A. In some instances we do.

Q. Well, it is a fact that you are requested to give certificates to your purchasers certifying as to the material used in the nuts, sleeves and bodies?

A. Only in some instances.

Q. Do you give certificates as to the chemical and physical analyses of the fittings that you sell?

A. When it is requested or demanded, yes.

Q. Do you get from your manufacturers certificates with respect to the chemical and physical analyses?

A. When we need it or when it is demanded, yes, we do.

Q. And if you get chemical and physical analyses you get them at the time that the fittings are delivered or furnished to you by the manufacturer?

A. Right.

Q. Then do you make your own chemical and physical [18] analyses, or do you rely on the manufacturers, the screw machine manufacturers that make the various parts for you?

A. Both. We rely on them, and if we have any doubt in our mind we send it up to Mare Island, or send it out to Triplett & Barton and have them make an analysis.

Plaintiff's Exhibit No. 13—(Continued)

(Deposition of Joseph C. Collins.)

Q. Now, my motion requested the production of certain physical units. Do you have some of them here?

A. Yes, we have.

Mr. Freeman: Off the record.

(A discussion was had off the record.)

Q. (By Mr. Freeman): Would you mind giving me the units that you have produced in sets, identifying any set, and you can use your own choice as to the manner of production, and then if I can get a string we will fasten them together so that they will always remain the same.

A. We haven't produced any in sets, Mr. Freeman. I produced this part——

Q. By "this part" you are talking about a body?

A. A body. I had this body produced or machined—use the word "machined."

Q. Do you have a nut and a sleeve to go with that body?

A. No, I don't. Yes, I do. This is an accompanying nut and accompanying——

Q. Will you give the material of which that sleeve is made? I note that the fitting you have there—the nut and [19] the body is made of steel.

A. I want to add for the record on the thing that I may not have produced all these parts. We deal very extensively in surplus, but whether I brought down accompanying parts—for instance, this (indicating). Some of these parts we may not have

Plaintiff's Exhibit No. 13—(Continued)
(Deposition of Joseph C. Collins.)

had produced or not made, but we might have bought them at surplus and imprinted AN-CE on there, an impression stamp.

Q. When you put on "AN-CE" does that then mean it was manufactured by Collins Engineering Company?

A. No, it means that we supplied it to the air-frame manufacturer, not necessarily that we machined it or produced it. It is a supplier's stamp.

Mr. Freeman: You hand me, if you will, the body, sleeve and nut that you have assembled, and I am going to ask that a string be put through those three parts and marked for identification as Plaintiff's Exhibit 13.

The Witness: Mr. Freeman, do you want me to put them together? I can put them together.

Mr. Freeman: We will put them together. We just want the three pieces.

The Witness: I will hand them to you three at a time, those three.

(Objects referred to were marked by the Notary Public as Plaintiff's Exhibit 13 for identification, and thereupon [20] returned to counsel.)

Q. (By Mr. Freeman): The fittings that you sell include the marking of your company, such as "CE"; correct? A. Correct.

Q. And the three parts that you have given me

Plaintiff's Exhibit No. 13—(Continued)

(Deposition of Joseph C. Collins.)

which are marked Plaintiff's Exhibit 13 for identification include such markings? A. Correct.

Q. Now, do you have other sets of fittings?

(Object handed to Mr. Freeman.)

Do you have a sleeve and nut for the body that you have here handed me, which is a size 4 fitting?

A. Yes, I have a sleeve and a nut here.

Q. You have a sleeve and nut of the same material? A. No, I don't. I have one of steel.

Q. Are they usually used, an aluminum body with a steel sleeve and a steel nut?

A. I don't know, Mr. Freeman. I am no engineer. I just make these component parts and they assemble them any way they want.

Q. You do make these component parts so that they interfit and interconnect, do you not?

A. Correct.

Q. So that they will make a proper joint?

A. Yes. If they are made to the print, to the AN print, they should mate perfectly. [21]

Mr. Freeman: I am going to ask that the parts that you have handed me, which is size 4, and which bears the initial "CE" thereon, be marked for identification as Plaintiff's Exhibit 14.

(Objects referred to were marked by the Notary Public as Plaintiff's Exhibit 14 for identification, and thereupon returned to counsel.)

Q. (By Mr. Freeman): Now, each of the parts

Plaintiff's Exhibit No. 13—(Continued)

(Deposition of Joseph C. Collins.)

that go to make up Exhibit 14 bear the initial "CE" thereon, and are of your manufacture, that is, you are responsible for their manufacture?

A. Yes. I don't know if we had those produced or if we were responsible for the manufacturing, inasmuch as we buy so much surplus. Those could be surplus parts and overstamped or an impression stamped by ourselves.

Q. I am going to ask you to take and examine Plaintiff's Exhibit 14 carefully, and tell me whether or not they are overstamped or whether they are originally stamped and are of your manufacture or your responsibility for their manufacture.

A. The nut is a part that we had run, and a sleeve is never stamped, at least, this one isn't stamped, so on the sleeve I would say that is not our manufacture, but is a surplus purchase; and on the body I can't tell you on this whether it is ours or whether we bought it in surplus. [22] It has our name "CE" stamped on it.

Q. Would you say that was an overstamp or was that initially stamped?

A. No, it looks like initially stamped to me.

Q. And anodized after the stamp was put on?

A. Yes.

Q. You don't re-anodize any surplus parts, do you?

A. Yes, we do, a tremendous amount of them.

Q. Now, will you give me another set or two?

(Objects handed to Mr. Freeman.)

Plaintiff's Exhibit No. 13—(Continued)
(Deposition of Joseph C. Collins.)

What you have handed me is a size 4 in steel; correct? A. Right, correct.

Mr. Freeman: I am going to ask that the reporter mark the fittings just handed me as Plaintiff's Exhibit 15 for identification.

(Objects referred to were marked by the Notary Public as Plaintiff's Exhibit 15 for identification, and thereupon returned to counsel.)

Q. (By Mr. Freeman): Do you still have some additional parts that are not duplicates of parts that you have already handed me?

A. No, I think you have a complete set of everything, except this, an individual part.

Q. Was that asked for by our motion? [23]

A. I don't think so.

Mr. Freeman: Then I am not interested in it. I am wondering if you would now hand me the duplicates of the three exhibits that have been referred to as Exhibits 13, 14 and 15?

(Objects handed to Mr. Freeman.)

Mr. Freeman: Off the record.

(A discussion was had off the record.)

Q. (By Mr. Freeman): You sell your fittings to anyone that wants to buy them and has the money to pay for them? A. Right.

Q. That has been your practice from the time you started in business? A. Right.

Plaintiff's Exhibit No. 13—(Continued)
(Deposition of Joseph C. Collins.)

Q. And you have within the last six years actually manufactured or had manufactured for you nuts, sleeves and shapes or bodies?

A. Right.

Q. That is your practice as of today?

A. Right.

Q. And, as I say, the only difference, you had your own plant originally and now you use the facilities of others? A. That is correct.

Q. However, in the sale of your products back in 1942, 1943 and 1945 they were identified by the initial [24] "CE" and were of your own manufacture? A. Yes, that is correct.

Q. And as of today what you sell you again initial "CE," and are manufactured for you by others? A. Right.

Q. And the manufacture by others is done on your direction and instructions and under your supervision?

A. Well, not under our supervision. We place a purchase order with a reputable shop, and they supply us with parts. How they make them or what manner, we don't care as long as they deliver to us perfect fittings.

Q. By "perfect fittings" you mean those that meet your required specifications?

A. Correct, and our required specifications is the AN specifications.

Q. You do not have an engineering department

Plaintiff's Exhibit No. 13—(Continued)

(Deposition of Joseph C. Collins.)

of your own to determine the various angles that are put on the sleeves or the nuts or the bodies?

A. No, we don't have any engineer.

Q. In other words, you use only AN drawings?

A. Right.

Q. And your company had nothing to do with determining the angle of the inside of the sleeve or the angle on the outside of the sleeve?

A. No, we didn't. We were written to by—during the war, by that committee, I don't even remember the name, and [25] we would make some general answers, but that is about all.

Q. Did you ever furnish to the Production Resources Section, Materiel Center, Wright Field, your qualifications with respect to the manufacture of Parker type fittings?

A. That I don't know. We might have.

Q. Did you ever have any inquiry from that section of the Government at Wright Field with respect to your ability to manufacture Parker type fittings?

A. I think during the war they no doubt inquired of our ability.

Q. And no doubt you answered as to your ability to manufacture Parker type fittings?

A. I think such surveys were sent out, and I am quite sure we would answer them, as they were sent out.

Q. You said you started manufacturing fittings in 1942, and I would like to have you reflect for a

Plaintiff's Exhibit No. 13—(Continued)
(Deposition of Joseph C. Collins.)

moment and tell me whether or not it wasn't until 1943 that you began manufacturing the fittings?

A. Well, it could have been, Mr. Freeman. We originally went into a valve operation, and then we were in it for quite some time, and then went into fittings a substantial time later after our company was formed, and it could have been 1943. I would have to personally look up our original invoices to determine the exact date.

Q. Would you mind rechecking, so that we can later get from you a definite date when you started the manufacture [26] of Parker type fittings?

A. Yes, I can check that up and give us the exact month and year, I believe, on that.

Q. You were one of the men that attended a meeting in January of 1948 at the Jonathan Club here in Los Angeles, in connection with litigation brought by Parker Appliance Company against Masters?

A. Yes, I attended one meeting down there. I don't know the exact date. What date did you say that was?

Q. Along in January of 1948.

A. Well, the exact date I don't know, but I attended one meeting down there.

Q. And that was prior to the time that you were sued?

A. Yes, that is correct.

Q. Did you then agree to support Masters in his suit financially?

A. Yes, I did.

Plaintiff's Exhibit No. 13—(Continued)

(Deposition of Joseph C. Collins.)

Q. Did you actually make any contribution of money towards the defense of his suit?

A. Yes, I did.

Q. Did you send out any letters soliciting others as independent manufacturers to assist in the litigation against The Parker Appliance Company?

A. No, sir.

Q. Did you have any conference with any of the other so-called individual manufacturers of fittings with respect [27] to making contributions or supporting the Masters suit financially?

A. No, no, I did not.

Q. Your support was only in your own behalf?

A. Regretfully, yes.

Q. Did you ever buy any fittings from Mr. Masters or from the Masters Company?

A. Yes. It is rarely, but we do.

Q. On the catalog, Exhibit 12, you speak about "Our plant is equipped to fill your immediate requirements for bolts, nuts and so forth." You really mean you have the sales ability to fill——

A. That is correct. I forgot what advertising agency put that out, but it was sales enthusiasm, or their method of describing to our customers that we can supply them with their needs in fittings, because we don't have any plant or manufacturing ability.

Q. You have warehouse facilities?

A. Yes, we do.

Plaintiff's Exhibit No. 13—(Continued)
(Deposition of Joseph C. Collins.)

Q. And you do stock fittings, I mean the parts that go to make up the fittings?

A. Yes, we do.

Q. In other words, you don't wait until you have an order and then buy them from a manufacturer?

A. No, we actually stock in advance.

Q. And you carry a stock in size 4 and in size 8? [28]

A. Yes, we do.

Q. And in the various metals, that is, steel, aluminum, and so forth?

A. Correct.

Q. So that the only difference in your operation as of today or as of 1946 and 1947, distinguished from your operations in 1943, 1944 and 1945, is that prior to 1945 you did your own manufacturing and now you have others manufacture for you?

A. Yes, that is one essential difference. The other big difference is we are probably the largest purchaser of surplus fittings in the United States or the world, as far as that goes. We buy terrific tonnage of surplus fittings.

Q. I am primarily interested in your manufacture of fittings, and you have manufactured fittings all during these years from 1943 on up to the present time?

A. We manufactured up to the time we sold our machinery and now we buy the fittings from machine shops, who in turn manufacture.

Q. Perhaps I should say you manufactured or have manufactured for you fittings?

Plaintiff's Exhibit No. 13—(Continued)
(Deposition of Joseph C. Collins.)

A. Correct.

Mr. Freeman: That is all, Mr. Beehler. [29]

Cross-Examination

By Mr. Beehler:

Q. There is only one thing that I would like to be sure is straight in the record. Mr. Collins, I call your attention to this Directory of Suppliers Aircraft Tubes and Fittings, prepared by Resources Control Section, April, 1944, in which are listed various manufacturers of different parts, for example, AC811BT nuts and AC811F'T nipples. As of that period of time, 1944, you were then manufacturing those yourself, is that right?

A. Yes. I don't know when the exact cut-off date was, when we sold our machinery, but I believe it was the end of 1944.

Q. With regard to the drawings you may have used then what happened to them?

A. Like all other things coming out of the war, we more or less abandoned practically all of our wartime drawings and everything, and I guess they were lost in the movement of our plant. Our plant was converted over to an automobile agency, and I am afraid a lot of that stuff was destroyed at the time we cleaned out the plant in order to make an automobile agency out of the plant.

Mr. Beehler: That is all.

Mr. Freeman: I have a few more questions, Mr. Collins, I am sorry. [30]

Plaintiff's Exhibit No. 13—(Continued)
(Deposition of Joseph C. Collins.)

Redirect Examination

By Mr. Freeman :

Q. Mr. Collins, did you ever receive a threat of infringement from the Parker Company with respect to its patents Nos. 1893442 and 1977240?

A. Yes, I received a letter stating that they alleged that I was infringing on their patents. Just what patent numbers, I don't know, but I know I got a letter from Parker.

Q. My question was: did you ever receive a notice or a threat or any reference by The Parker Appliance Company to its 1893442 patent?

A. I am not familiar with the letter contents enough to know just what patents it enumerated.

Q. What customers of yours were threatened under Patent Nos. 1893442 or 1977240 by Parker Company, if you know?

A. Well, I don't know.

Q. As a matter of fact, you don't know whether Parker Company ever accused any of your customers with respect to the two patents last mentioned?

A. My memory isn't clear enough as to the numbers. I know they threatened North American and some of the other airframe manufacturers, and just under what particular numbers I could not state right now.

Q. Do you have any copies of any of those letters, or whatever you call threats? [31]

A. I have one, but——

Plaintiff's Exhibit No. 13—(Continued)
(Deposition of Joseph C. Collins.)

Q. Will you make it available to me?

A. If I still have it, I will.

Q. You don't know, though, definitely as of now that those letters included Patent Nos. 1893442 and 1977240, do you? A. No, I don't.

Q. You did receive a notice of infringement under the patent in suit No. 2212183 from The Parker Appliance Company, or its attorney?

A. Mr. Freeman, I received a letter, and unless I find that letter, if I have the letter yet, I would have to refresh my memory and read the actual numbers there enumerated. I know I received a letter from Parker alleging infringement. Just what the numbers were the letter itself would be the best evidence of that. I can't recall it from memory.

Q. Do you know on what basis your attorney included Paragraph XXVIII of the answer reading as follows: "That upon information and belief plaintiff by its agents, officers, employees and other persons responsible for its actions, has repeatedly and on many occasions openly accused defendant's customers throughout the trade of infringing certain patents, Nos. 1893442, 1977240 and 2212183, because of the use by said customers of couplings supplied by the defendant"? [32]

A. Merely from just hearsay and from general rumor and conversation. I have very many former Parker employees working for me, and it was their impression to myself that Parker was going to bring action against us and on all their patents.

Plaintiff's Exhibit No. 13—(Continued)
(Deposition of Joseph C. Collins.)

Q. In other words, you have former Parker employees? A. Yes.

Q. And at the time that they gave you that information they were then your agents, officers or employees? A. Yes.

Q. They were not Parker employees then?

A. No.

Q. I take it then, with respect to Paragraph XXVII, wherein you state that: "Upon information and belief plaintiff, by its agents, officers, employees and other persons" and so forth, that your same answer applies as you gave me with respect to Paragraph XXVIII?

A. Any—it was merely just general rumor that we received from the various buyers of the airframe manufacturers that Parker was going after us on all their patents, so I presumed that it would be all extant or existing patents, regardless of singling out one individual patent. I had, through various buyers of the airframe manufacturers, the conviction that Parker was going to go after us on every one of their patents that they held.

Q. After suit was filed against you by The Parker [34] Appliance Company you then knew that that suit was limited to Patent No. 2212183, did you not?

A. Well, yes, I had constructive notice of it.

Mr. Freeman: Off the record.

(A discussion was had off the record.)

Mr. Freeman: That is all.

Plaintiff's Exhibit No. 13—(Continued)

(A discussion was had off the record.)

The Witness: I am handing you, Mr. Freeman, two additional papers which I want to give you, one marked ANF-366 and the other marked "Air Force-Navy Aeronautical Standard Drawings, March 1, 1948."

Q. (By Mr. Freeman): Mr. Collins, are you agreeable to waiving your signature to this deposition?

Mr. Beehler: If you want to, you may.

The Witness: It is perfectly all right with me.

Mr. Freeman: That is all, thank you. Mr. Beehler, by agreement the exhibits introduced yesterday during the taking of the deposition of Mr. Masters and today of Mr. Collins may be retained by counsel for plaintiff, subject to inspection by defendant at all reasonable times, and that goes for the original deposition.

Mr. Beehler: Yes, that is satisfactory. [34]

State of California,

County of Los Angeles—ss.

I, W. E. McClure, a Notary Public within and for the County of Los Angeles and State of California, do hereby certify:

That prior to being examined the witness named in the foregoing deposition, Joseph C. Collins, was by me duly affirmed to testify the truth, the whole truth and nothing but the truth; that the said deposition was taken down by me in shorthand at the

Plaintiff's Exhibit No. 13—(Continued)

time and place therein named, and thereafter reduced to typewriting under my direction.

I further certify that it was stipulated by and between counsel that the signature of the witness to the said deposition be waived, and that it shall possess the same force and effect as though read and signed by the said witness.

I further certify that I am not interested in the event of the action.

Witness my hand and seal this 17th day of July, 1949.

/s/ W. E. McCLURE,

Notary Public in and for the County of Los Angeles, State of California.

Received in evidence July 14, 1950.

[Title of District Court and Cause.]

CERTIFICATE OF CLERK

I, Edmund L. Smith, Clerk of the United States District Court for the Southern District of California, do hereby certify that the foregoing pages numbered from 1 to 128, inclusive, contain the original Complaint for Infringement of Letters Patent, Answer and Counter-Claim and Reply in each of the above-entitled causes; Opinion; Findings of Fact and Conclusions of Law; Final Judgment; Notice of Appeal; Statement of Points; Plaintiff's Designation of Record; Defendants' Counter-Designation of

Record and Stipulation and Order Extending Time for Filing Counter-Designation of Record which, together with original depositions of W. Howard, Ehmann, William D. Clark, Edward M. Greet, Roland Bergh, Frederick E. Amon, Jr. and Robert Henry Davies in two volumes; Original Reporter's Transcript of Proceedings on June 14, 15, 16, 20, 21, 22, and 23 and July 5 and 6, 1950; Original Plaintiff's Exhibits 1 to 12, inclusive, 12-A, 13, 14, 15, 15-A, 16 to 28, inclusive, 28A to 28AA, inclusive, 28AA to 28 EE, inclusive, 29 to 62, inclusive, 62A, 63 to 73, inclusive, 73A, 73B, 74 to 80, inclusive; and Original Defendants' Exhibits A to H, inclusive, H-1 to H-5, inclusive, I to Z, inclusive, AA to TT, inclusive, TT-1 to TT-16, inclusive, UU to ZZ, inclusive, AAA to OOO, inclusive, transmitted herewith, constitute the record on appeal in the above-entitled causes to the United States Court of Appeals for the Ninth Circuit.

I further certify that my fees for preparing and certifying the foregoing record amount to \$2.00 which sum has been paid to me by appellant.

Witness my hand and the seal of said District Court this 7th day of February, A, D. 1951.

EDMUND L. SMITH,

Clerk.

[Seal] By /s/ THEODORE HOCKE,
Chief Deputy.

[Endorsed]: No. 12848. United States Court of Appeals for the Ninth Circuit. The Parker Appliance Company, a Corporation, Appellant, vs. Irvin W. Masters, Inc., and Joseph C. Collins, Doing Business Under the Firm Name and Style of Collins Engineering Company, Appellee. Transcript of Record. Appeal from the United States District Court for the Southern District of California, Central Division.

Filed February 8, 1951.

/s/ PAUL P. O'BRIEN,

Clerk of the United States Court of Appeals for the
Ninth Circuit.

In the United States Court of Appeals
for the Ninth Circuit

Appeal No. 12,848

THE PARKER APPLIANCE COMPANY,

Plaintiff-Appellant,

vs.

IRVIN W. MASTERS, INC.,

Defendant-Appellee.

THE PARKER APPLIANCE COMPANY,

Plaintiff-Appellant,

vs.

JOSEPH C. COLLINS, Doing Business Under the
Firm Name and Style of COLLINS ENGI-
NEERING COMPANY, Hollywood, Califor-
nia,

Defendant-Appellee.

STATEMENT OF POINTS FOR
PLAINTIFF-APPELLANT

The points of error of the District Court which Plaintiff intends to urge on appeal from the Final Judgment of the Court in favor of Defendants in the above-entitled action are that the Court erred in:

1. Holding that United States Letters Patent No. 2,212,183, issued to Arthur L. Parker of Cleveland, Ohio, on August 20, 1940, is invalid.

2. Holding that the improvements of Parker Patent No. 2,212,183 are not defined in the patent claims.

3. Holding that the descriptive portion of Parker Patent No. 2,212,183 does not describe either the sleeve head angle or the differential angle nor illustrate the same in the drawing in such full, clear, concise, and exact terms as to enable any person skilled in the art or science to which it appertains to make construct or use the same.

4. Holding that the claims of Parker Patent No. 2,212,183 fail to particularly point out and distinctly claim the part, improvement, or combination claimed to be the discovery.

5. Holding that the recitations in each of the claims of Parker Patent No. 2,212,183 with respect to the shape of the parts fail to particularly point out and distinctly claim the part, improvement, or combination constituting the invention.

6. Failing to hold that all of the parts described in the claims of Parker Patent No. 2,212,183 coact in a combination not shown in the prior art to produce a new result.

7. Refusing to hold that the prior art listed below does not disclose the relationship of the outer surface of the sleeve head and the inner surface of the nut and fails to disclose the differential angle between the inner surface of the sleeve head and the tube flare shown and disclosed in Parker Patent No. 2,212,183:

W. N. Abbott	46,603	2/28/1865
G. H. Buzzell	177,686	5/23/1876
H. Guyer	182,435	9/19/1876
H. Guyer	196,084	10/16/1877
R. McConnell	290,446	12/18/1883
F. George	326,425	9/15/1885
I. B. Potts	406,060	7/ 2/1889
J. Anderson	535,236	3/ 5/1895
L. F. Jordan	654,735	7/31/1900
J. J. Dossert	772,136	10/11/1904
F. W. Reed	964,315	7/12/1910
S. L. Brown	1,058,542	4/ 8/1913
A. W. Bachmann	1,352,342	9/ 7/1920
J. Benzion	1,680,080	8/ 7/1928
E. E. Hewitt	1,820,020	8/25/1931

Pipes and Tubes
Their Construction and Jointing

By
Philip R. Bjorling
London

Whittaker and Co.
White Hart Street, Paternoster Square
1902

Library of Congress No. TS 280 B 6

8. Holding that Defendants have independently engaged in the business of manufacturing and/or supplying nuts, bodies, and sleeves separately but not as assembled fittings to ultimate users and failing to hold that Defendants have sold nuts, bodies and sleeves as a group in a single transaction.

9. Finding that neither the description, drawings, nor claims of Parker Patent No. 2-212,183

contain dimensions, proportions, or angular relationships corresponding to the dimensions, proportions or angular relationships contained in the government specifications under which the accused fittings and parts were made or sold.

10. Holding that no one, by reference to the Parker Patent No. 2,212,183, could produce a fitting which would achieve the results called for by the patent without experimentation.

11. Holding that the contribution of Parker Patent No. 2,212,183 to the art is extremely narrow and that the language of the claims is broad and ambiguous and broader than the invention.

12. Holding that the claims of Parker Patent No. 2,212,183 are functional at an exact point of novelty and lacking in essential structural description.

13. Holding that Plaintiff attempted to enlarge the claims of the patent in suit.

14. Failing to hold that Parker Patent No. 2,212,183 is infringed by the accused devices.

15. Holding that the differences disclosed and claimed in Parker Patent No. 2,212,183 over the prior art are merely the work of a skilled mechanic and do not involve patentable invention.

16. Failing to hold that the changes made in Parker Patent No. 2,212,183 over the prior art with respect to the relationship of the outer surface of the sleeve head and the inner surface of the nut and the differential angle between the inner surface of the sleeve head and the tube flare give rise to a

new coaction of the parts and a new combination rising to the dignity of invention and patentable.

17. Failing to hold the changes made in Parker Patent No. 2,212,183 over the prior art with respect to the relationship of the outer surface of the sleeve head and the inner surface of the nut and the differential angle between the inner surface of the sleeve head and the tube flare are properly defined in the patent claims and in a manner complying with Section 4888 R. S.

18. Holding Parker Patent No. 2,212,183 invalid because the claims therefore do not comply with Section 488 R. S. 35 U.S.C.A. 33 in accordance with the statements in *Sales Affiliates, Inc. v. Hutzler Bros. Co.*, 71 F Supp. 287; *Continental Paper Bag Co. v. Eastern Paper Bag Co.*, 210 U. S. 405; *Yale Lock Co. v. Greenlaw*, 117 U. S. 554; *Incandescent Lamp Patent Case*, 159 U. S. 465; *Halliburton Oil Well Cementing Co. v. Walker, et al.*, 329 U. S. 1; and *General Electric Company v. Wabash Appliance Corp.*, 304 U. S. 364.

LYON & LYON,

/s/ CHARLES G. LYON,

Attorneys for Plaintiff-
Appellant.

Of Counsel:

BAIR, FREEMAN &
MOLINARI,

/s/ WILL FREEMAN.

February 19, 1951.

[Endorsed]: Filed February 21, 1951.

[Title of Court of Appeals and Cause.]

DESIGNATION OF RECORD
FOR PLAINTIFF-APPELLANT

Plaintiff, The Parker Appliance Company, designates the following portions of the record, proceedings and evidence to be contained in the record on appeal in the above-entitled cause.

The Parker Appliance Company v. Irvin W. Masters, Inc. (Civil Action No. 7874-W)

1. Original complaint filed December 29, 1947.
2. Answer and counterclaim filed February 17, 1948.
3. Reply to counterclaim filed March 16, 1948.
The Parker Appliance Company v. Joseph C. Collins, doing business under the firm name and style of Collins Engineering Company, Hollywood, California (Civil Action No. 8023-W)
4. Original complaint filed March 4, 1948.
5. Answer and Counterclaim.
Consolidated Action
6. Reply to counterclaim filed May 4, 1948.
7. Opinion of Judge Westover filed October 17, 1950.
8. Findings of Fact and Conclusions of Law, entered December 8, 1950.
9. Final Judgment entered December 8, 1950.
10. Notice of Appeal filed.

11. Statement of points upon which Plaintiff-Appellant intends to rely filed.

12. Transcript of trial proceedings before Judge Westover; including proceedings on June 14 to 16; 20 to 23; and July 5 and 6, 1950.

13. The following Plaintiff's Exhibits:

Exhibit No.

1. Parker Patent No. 2,212,183.
12. Masters deposition, July 11, 1949.
- 12-A. Letter from Masters to Republic Aviation Corp. dated April 27, 1949.
13. Collins' deposition, July 12, 1949.
14. Letter from Parker to Masters, August 12, 1943.
15. Letter from Parker to Masters, December 3, 1943.
- 15-A. Letter from Masters, Inc. to Army Air Forces, dated December 9, 1943.
16. Letter from Parker to Masters, November 13, 1945.
25. Parker Patent No. 1,893,442.
26. Parker Patent No. 1,977,240.
- 28-A. Stage drawing—Typical Tubing Installation.
- 28-B. Stage drawing—Tubing vs. Pipe.
- 28-C. Stage drawing—Tubing vs. Pipe.
- 28-D. Stage drawing—Typical Fitting for lead pipe.
- 28-E. Stage drawing—Wall Thickness of Flare thins out on hard tubes.
- 28-F. Stage drawing—Typical Two-Piece Fitting for thin wall hard tubes.

Exhibit No.

- 28-G. Stage drawing—Typical Three-Piece Fitting for thin wall hard tubes.
- 28-H. Stage drawing—Improved Three-Piece Fitting, Parker Patent 2,212,183.
- 28-I. Stage drawing—Sleeve Head Angle, Parker Patent 2,212,183.
- 28-J. Stage drawing—Advantages of sleeve head angle. Permits free expansion of sleeve head.
- 28-K. Stage drawing—Advantages of sleeve head angle. Expansion of sleeve head provides hoop tension.
- 28-L. Stage drawing—Advantages of sleeve head angle. Hoop tension lock nut against loosening.
- 28-M. Stage drawing—Advantages of sleeve head angle. Free expansion corrects out-of-round sleeves.
- 28-N. Stage drawing—Advantages of sleeve head angle. Expansion converts toe contact to area contact.
- 28-O. Stage drawing—Advantages of sleeve head angle. Expansion makes amount of nut turning less critical.
- 28-P. Stage drawing—Advantages of sleeve head angle. Angle provides more room for expansion where expansion is greatest.
- 28-Q. Stage drawing—Advantages of sleeve head angle. Angle permits maximum shoulder contact.

Exhibit No.

- 28-R. Stage drawing—Advantages of sleeve head angle. Angle facilitates disassembly of sleeve from nut.
- 28-S. Stage drawing—Advantages of sleeve head angle. Angle provides additional clearance to avoid locking of sleeve to nut.
- 28-T. Stage drawing—Advantages of sleeve head angle. Angle prevents scoring of flare.
- 28-U. Stage drawing—Advantages of sleeve head angle. Angle prevents twisting of tube.
- 28-V. Stage drawing—Advantage of sleeve head angle. Angle facilitates disassembly of bent tubes.
- 28-W. Stage drawing—Advantages of sleeve head angle. Angle facilitates disassembly of damaged and tagged tubes.
- 28-X. Stage drawing—Differential angle Parker Patent 2,212,183.
- 28-Y. Stage drawing—Advantages of differential angle. Toe contact facilitates formation of holding nub.
- 28-Z. Stage drawing—Advantages of differential angle. Toe contact tends to produce line type seal.
- 28-AA. Stage drawing—Advantages of differential angle. Toe contact resists vibration failure.

Exhibit No.

- 28-BB. Stage drawing—Advantages of differential angle. Toe contact compensates for misaligned flares.
- 28-CC. Stage drawing—Advantages of differential angle. Toe contact avoids weakening of the flare at its base.
- 28-DD. Stage drawing—Advantages of differential angle. Toe contact facilitates expansion of sleeve head.
- 28-EE. Stage drawing—Advantages of differential angle. Toe contact increases wrench torque range.
- 47. Black and white drawing of tube and coupling.
- 48. Black and white drawing of tube and coupling with hand written markings.
- 49. Photostat having to do with zones A, B, C.
- 50. Chart of Claim 1 and photo of patent drawing (2,212,183).
- 51. Photostat of patent drawings and Claim 2, (2,212,183).
- 52. Photostat of patent drawings and Claim 3, (2,212,183).
- 53. Photostat of drawing of Masters Fitting and Claim 1 (2,212,183).
- 54. Invoice of Masters.
- 55. Invoice of Masters.
- 56. Photostat (Masters' Deposition fittings, Measurement of parts).

Exhibit No.

- 57. Photostat (Collins Deposition fittings, Measurements of parts).
- 58. Photostat of Masters fittings and Claim 2, (2,212,183).
- 59. Photostat of Collins fitting and Claim 2, (2,212,183).
- 62. Charts, indicating measurements.
- 62-A. Charts, indicating measurements.
- 70. Drawing referred to in Amon Deposition.
- 72. Document entitled "Aircraft Report."
- 73. Letter from Parker to Asst. Chief, Materiel Div., Wright Field, on Flared tube couplings, dated March 3, 1941.
- 73-A. Letter from War Dept. Air Corps. to Parker, May 25, 1942.
- 73-B. Letter from Parker to Commanding General, Army Air Forces, dated June 18, 1942.
- 77. Final judgment by Parker against V. L. Graf.
- 78. Photograph of No. 22695, Fig. 3 (from Douglas Aircraft Report).

14. The following Plaintiff's Exhibits to be treated as physical exhibits and not included as part of the printed record:

- 2. Catalog 1 of Masters, "AN Pipe, Tube & Hose Fittings" for the Aircraft industry.
- 3. Stock list of Collins Engineering Co.
- 4. Stock list, page 7, taken from Collins Engineering Company catalog.

Exhibit No.

5. Masters No. 8 Aluminum Fitting, assembled.
6. Masters No. 4 Aluminum Fitting, unassembled.
7. Masters No. 4 Aluminum Fitting, cut away.
8. Masters No. 8 Aluminum Fitting, cut away.
9. Collins No. 4 Steel Fitting.
10. Collins No. 4 Steel Fitting, cut away.
11. Collins No. 8 steel fitting with copper silicon sleeve.
17. Collins active prints, furnished by Collins at deposition of July 12, 1949.
18. Group of blueprints furnished to Parker by Masters.
19. NAF Fitting, assembled.
20. NAF Fitting, cut away.
21. Parker No. 8 brass 810 Fitting, assembled.
22. Parker No. 8 brass 810 Fitting, cut away.
23. Parker No. 6, 811 (prior to 1940) Fitting, assembled.
24. Parker No. 6, 811 (prior to 1940) Fitting, cut away.
27. Specimen of flared tube.
29. Mock up installation of pipe.
30. Tubing assembly.
31. Piece of lead pipe.
32. Parker No. 24 Aluminum Fitting, assembled.

Exhibit No.

- 33. Parker No. 24 Aluminum Fitting, cut away, pinned.
- 34. Parker No. 24 Aluminum Fitting, cut away, plastic fill.
- 35. Parker No. 24 Steel Fitting, assembled.
- 36. Parker No. 24 Steel Fitting, cut away, plastic fill.
- 37. Parker No. 4 Aluminum Fitting, assembled.
- 38. Parker No. 4 Aluminum Fitting, cut away, plastic fill.
- 39. Parker No. 4 Steel Fitting, assembled.
- 40. Parker No. 4 Steel Fitting, cut away, plastic fill.
- 41. Parker No. 4 Steel Fitting, cut away, embedded in plastic.
- 42. Parker No. 4 Aluminum Fitting, cut away, embedded in plastic.
- 43. Parker No. 8 Aluminum Fitting, assembled.
- 44. Parker No. 8 Aluminum Fitting, cut away, plastic fill.
- 45. Parker No. 8 Steel Fitting, assembled.
- 46. Parker No. 8 Steel Fitting, cut away, plastic fill.
- 60. Parker No. 16 Aluminum Fitting with lead pipe.
- 61. Parker No. 12 Aluminum Fitting with lead pipe.

Exhibit No.

- 63. Bjorling Fitting, uncut (per dwg. SK-3-1750-2MS).
- 64. Parker No. 8 Aluminum Fitting, cut away (Amon's deposition Exhibit No. 1).
- 65. Letter from Parker to Asst. Chief, Materials Div. Wright Field, dated October 25, 1940.
- 66. Drawings referred to in Amon deposition.
- 67. AN-F-366 Pamphlet.
- 68. AN-F-47 Pamphlet.
- 69. Parker No. 4 Steel Fitting, cut away.
- 71. Parker No. 5 Aluminum Fitting, cut away, embedded in plastic.
- 74. License agreement from Parker to Weatherhead Company.
- 75. License agreement from Parker to The Deutsch Company.
- 76. Photostat of agreement between Parker and Pacific Screw, dated October 16, 1947.
- 79. No. 6 Steel Fitting.
- 80. No. 6 Aluminum Fitting.

15. The following Defendants' Exhibits as follows:

- QQ. Deposition of C. H. Wagner, Jr., May 6, 1949.
- TT. Book of prior art patents relied on by Defendants.
- UU. Photograph—Douglas No. 22697.

16. The following Defendants' Exhibits to be treated as physical exhibits and not included as part of the printed record:

- A. Sketch by Wolfram of 3-pc. fitting.
- B. Sketch by Wolfram.
- C. Sketch by Wolfram.
- D. Sheet of paper marked "Fig. 86".
- E. Sketch of Wolfram, Fig. 9
- F. Parker bulletin.
- G. Parker bulletin.
- H. Drawing AND10061
- H-1. Drawing AN818.
- H-2. Drawing AN819.
- H-3. Drawing AND10056.
- H-4. Drawing AN817.
- H-5. Drawing AND10064.
- I. Parker drawing 811T.
- J. Parker drawing 811BT.
- K. Parker drawing 811FT.
- L. Parker drawing 2-1835.
- M. Parker drawing 2-1835-1.
- N. Parker drawing 2-1835-2.
- O. Drawing, Section No. 1.
- P. Drawing, Section No. 2.
- Q. Drawing, Section No. 3.
- R. Drawing, Section No. 4.
- S. Tabulation of figures representing test results.
- T. Work sheet (blank).
- U. Masters physical test specimen No. 1.
- V. Masters physical test specimen No. 2.

Exhibit No.

- W. Masters physical test specimen No. 3.
- X. Masters physical test specimen No. 4.
- Y. Masters physical test specimen No. 5.
- Z. Masters physical test specimen No. 6.
- AA. Masters physical test specimen No. 10.
- BB. Masters physical test specimen No. 11.
- CC. Masters physical test specimen No. 12.
- DD. Masters physical test specimen No. 35.
- EE. Masters physical test specimen No. 36.
- FF. Masters physical test specimen No. 1, steel.
- GG. Masters physical test specimen No. 2, steel.
- HH. Masters sketch showing set-up for testing.
- II. Colored sectional sketch, Section No. 5.
- JJ. Colored sectional sketch, Section No. 6.
- KK. Colored sectional sketch, comparative chart, Scale 20:1.
- LL. Parker drawing 9-2941-9.
- MM. Parker drawing 1-2537-15.
- NN. Parker drawing 4-2342-2.
- OO. Parker drawing 12-2741-27.
- PP. Parker price list No. 202-C.
- RR. Certified copy of file wrapper Parker Patent 2,212,183.
- SS. Stipulation for use of soft copies and Bjorling publication.
- VV. Drawing on section paper.
- WW. Adams sample No. 4. size 8 AN Aluminum Fitting with lead pipe—30 in. lb. torque, assembled.

Exhibit No.

- XX. Adams sample No. 3, size 8 AN Aluminum Fitting with lead pipe—40 in. lb. torque, assembled.
- YY. Adams sample No. 6, size 8 AN Aluminum Fitting with lead pipe—40 in. lb. torque, cut away.
- ZZ. Adams sample No. 2, size 8 AN Aluminum Fitting with lead pipe—120 in. lb. torque, cut away.
- AAA. Adams sample No. 8, size 8 AN Aluminum Fitting with aluminum tube—200 in. lb. torque, cut away.
- BBB. Adams sample No. 9, size 8 AN Aluminum Fitting with aluminum tube—525 in. lb. torque, cut away.
- CCC. Parker Patent No. 2,191,582.
- DDD. Parker Patent No. 2,251,715.
- EEE. Parker Patent No. 2,278,479.
- FFF. Parker Patent No. 2,289,382.
- GGG. Parker Patent No. 2,290,890.
- HHH. Parker et al Patent No. 2,316,711.
- III. Drawing No. 11-1137-2.
- JJJ. Drawing No. MS 1034.
- KKK. Drawing No. MS 1030.
- LLL. Parker Patent No. 1,619,755.
- MMM. Drawing No. 11-1137-12.
- NNN. Drawing, "Copy No. 44, Issued 11-11-37; Name Std. Triple Coupling Ft. Dim."—Drawing No. 11-1137.
- OOO. Drawing, "Size A, Drawing No. 12-1133-3, Revision M." (Engineering Department No. 6T).

17. The following depositions:

Frederick E. Amon, Jr.—May 5, 1949.

Robert Henry Davies—May 5, 1949.

W. Howard Ehmann—May 10, 1949.

William D. Clark—May 10, 1949.

Edward M. Greer—May 10, 1949.

Roland C. Bergh—May 11, 1949.

18. This designation.

Respectfully submitted,

LYON & LYON,

/s/ CHARLES G. LYON,

Attorneys for Plaintiff-
Appellant.

Of Counsel:

BAIR, FREEMAN &
MOLINARI,

/s/ WILL FREEMAN.

February 19, 1951.

[Endorsed]: Filed Feb. 21, 1950.

[Title of Court of Appeals and Cause.]

Appellees' Substitute Counter-Designation of Record and Order as to Physical Exhibits

Appellees, Irvin W. Masters, Inc., and Joseph C. Collins, doing business under the firm name and style of Collins Engineering Company, hereby submit their substitute counter-designation of portions of the records, proceedings and evidence to be contained in the record on appeal in the above-entitled case. This substitute counter-designation is to replace appellees' counter-designation of record heretofore filed in this Court.

By this substitute counter-designation appellees designate that the following paper exhibits be included as part of the printed record:

APPELLEES' EXHIBITS

Exhibit

No.

A—Wolfram's sketch of what patent means.

B—Wolfram's sketch of variations under patent.

C—Wolfram's sketch of variations under patent.

E—Wolfram's sketch showing variation in sketch sleeve head.

H—Drawing No. AND10061.

H-1—Drawing AN818.

H-2—Drawing AN819.

H-3—Drawing AND10056.

H-4—Drawing AN817.

H-5—Drawing AND10064.

I—Drawing 811 T Sleeve.

Exhibit

No.

J—Drawing 811 BT Sleeve.

K—Drawing 811 FT Body.

L—Parker Drawing No. 2-1835.

M—Parker Drawing No. 2-1835-1.

N—Parker Drawing No. 2-1835-2.

S—Summation Sheet Sleeve Head Expansion Tests.

RR—Certified copy of file history patent in suit No. 2,212,183.

SS—Stipulation and contents re publication "Pipes and Tubes" Philip R. Bjorling, 1902 Library of Congress No. TS 280 B6.

OOO—Size A Drawing No. 12-1133-3, Revision M. This substitute designation.

II—Colored Chart AN-6 to minimum clearance assembly from drawings. This chart is to be reproduced in the printed record in reduced size convenient for incorporation in such record, namely approximately page size, but in color as on the original.

JJ—Colored Chart assembly from Parker 1935 drawings minimum clearance condition. This chart is to be reproduced in the printed record in reduced size convenient for incorporation in such record, namely approximately page size, but in color as on the original.

KK—Colored Comparative Chart. This is to be reproduced in the printed record in reduced size convenient for incorporation in such

record, namely approximately page size, but in color as on the original.

The following paper exhibits shall be included only as physical exhibits and not be printed as part of the printed record:

Exhibit

No.

D—Figure 86 of prior art publication Bjorling.

F—Parker prints dimension sheets Nos. 1601, 1601-A and 1600.

G—Parker Tube Couplings and Associated Equipment Bulletin No. 37 of 1934, pages 40, 41, 42 and 63.

O—Colored Chart AN Size 8 Assembly.

P—Colored Chart Size 6 A1. Bronze Sleeve Assembly.

Q—Colored Chart Size 6 AC 811 Fitting Assembly.

R—Colored Chart Size 6 AC 811 C.S. Assembly.

T—Work Sheet Form for Tests.

HH—Sketch of Test Set-up.

LL—Parker Drawing 9-2941-9.

MM—Parker Drawing 1-2537-15.

NN—Parker Drawing 4-2342-2.

OO—Parker Drawing 12-2741-27.

PP—Parker price list No. 202-C, pages 5, 13, 14, 15, 40, 41.

QQ—Wagner Deposition.

TT1—Abbott 46,603.

TT2—Buzzell 177,686.

TT3—Guyer 182,435.

Exhibit

No.

TT4—Guyer 196,084.

TT5—McConnell 290,446.

TT6—George 326,425.

TT7—Potts 406,060.

TT8—Anderson 535,236.

TT9—Jordan 654,735.

TT10—Dossert—772,136.

TT11—Reed 964,315.

TT12—Brown 1,058,542.

TT13—Bachman 1,352,342.

TT14—Benzion 1,680,080.

TT15—Hewitt 1,820,020.

TT16—Parker 1,977,241.

UU—Photo in Adams.

VV—Chart 4 AN A1. Bronze Sleeve showing
18½° angle.

CCC—Parker 2,191,582.

DDD—Parker 2,251,751.

EEE—Parker 2,278,479.

FFF—Parker 2,289,382.

GGG—Parker 2,290,890.

HHH—Parker 2,316,711.

III—Parker Drawing No. 11-1137-2.

JJJ—Parker Drawing No. MS 1034.

KKK—Parker Drawing No. MS 1030.

LLL—Parker 1,619,755.

MMM—Parker Drawing No. 11-1137-12.

NNN—Copy No. 44, issued 11-11-37, Std. Triple
Coupling FT.Dim.

Appellant's Exhibits:

Exhibit

No.

67—AN-F-366 Pamphlet.

68—AN-F-47 Pamphlet.

Dated at Los Angeles, California, this 6th day of
March, 1951.

Respectfully submitted,

HUEBNER, BEEHLER,
WORREL, & HERZIG,

HERBERT A. HUEBNER, and
VERNON D. BEEHLER,

By /s/ VERNON D. BEEHLER,

ORDER AS TO PHYSICAL EXHIBITS

It Is Hereby Ordered that exhibits numbered II, JJ, and KK, being large colored charts, may be reproduced in the printed record in reduced size convenient for incorporation in such record, namely, approximately page size, but in color as on the original.

It Is Further Ordered that the following exhibits be considered as original exhibits before the Court and need not be printed in the record: D, F, G, O, P, Q, R, T, HH, LL, MM, NN, OO, PP, QQ, TT1, TT2, TT3, TT4, TT5, TT6, TT7, TT8, TT9, TT10, TT11, TT12, TT13, TT14, TT15, TT16, UU, VV, CCC, DDD, EEE, FFF, GGG, HHH, III, JJJ, KKK, LLL, MMM, NNN, and appellant's exhibits 67 and 68.

Dated: March 7, 1951.

/s/ WILLIAM DENMAN,

/s/ WM. E. ORR,

/s/ WALTER L. POPE,

Judges U. S. Court of Appeals for the Ninth
Circuit.

[Endorsed]: Filed March 13, 1951.

In the
United States Court of Appeals
For the Ninth Circuit

THE PARKER APPLIANCE COMPANY,
Plaintiff-Appellant,

vs.

IRVIN W. MASTERS, INC.,

and

JOSEPH C. COLLINS, doing business as
COLLINS ENGINEERING CO.,
Defendants-Appellees.

} Appeal No. 12,848

APPELLANT'S OPENING BRIEF.

LYON & LYON,
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Of Counsel:

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WILL FREEMAN,
W. M. VAN SCIVER,
GEORGE E. FROST.

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Cutter Laboratories v. Lyophile-Cryochem, 179 F. (2d) 80 (C. A. 9, 1949)	17, 51, 52, 55
Eibel Process Co. v. Minnesota & Ontario Paper Co., 261 U. S. 45 (1923)	25, 26
Faulkner v. Gibbs, 338 U. S. 267 (1949)	55
General Electric Company v. Wabash Appliance Corp., 304 U. S. 364 (1938)	17, 55, 56
Goodyear Tire & Rubber Co., Inc., et al. v. Ray-O-Vac Co., 321 U. S. 275 (1944)	25, 26, 39
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Hildreth v. Mastoras, 257 U. S. 27 (1921)	24, 26
Incandescent Lamp Patent Case, 159 U. S. 465 (1895)	16, 52, 53, 56
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Loom Co. v. Higgins, 105 U. S. 580 (1882)	39
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In the
United States Court of Appeals
For the Ninth Circuit

THE PARKER APPLIANCE COMPANY,
Plaintiff-Appellant,

vs.

IRVIN W. MASTERS, INC.,

and

JOSEPH C. COLLINS, doing business as
COLLINS ENGINEERING CO.,
Defendants-Appellees.

} Appeal No. 12,848

APPELLANT'S OPENING BRIEF.

This is an appeal from the judgment of Judge Westover dismissing an action for patent infringement brought by Plaintiff-Appellant against Defendants-Appellees (R. 89-91). Judgment was entered on an opinion and findings that Parker Patent No. 2,212,183* is invalid (R. 65-88).

Jurisdiction.

This suit arises under the patent laws. Jurisdiction of the District Court is founded upon 28 U. S. C. 1338. Appellate jurisdiction of this Court is based on 28 U. S. C.

* Hereafter referred to as the Parker patent. Couplings embodying the invention are referred to as Parker Couplings.

1291. Judgment was entered by the District Court on December 8, 1950. This appeal was taken on January 2, 1951, within the statutory period.

STATEMENT OF THE CASE.

Parker patent No. 2,212,183, and the present suit, relate to couplings or fittings used to connect detachably the flared ends of thin-walled metal tubes used to convey liquids and gases in airplanes, automatic machine tools, and other structures. These couplings are used in great numbers to connect the tubes forming the hydraulic, fuel, air, oxygen and like fluid systems in modern aircraft (R. 930-934). Approximately 6,000 of these couplings are used in a large commercial airplane (R. 1052).

The Parties.

Plaintiff-Appellant, The Parker Appliance Company, is assignee of the Parker patent in suit (Complaint paragraph 6, R. 5; admitted, R. 10). Plaintiff also manufactures and sells couplings constructed in accordance with the teachings of the patent (R. 177).

The Defendant-Appellee, Irvin W. Masters, Inc., manufactures and sells tube couplings for the aircraft industry and parts therefor (R. 562).

The Defendant-Appellee, Joseph C. Collins, sells tube

couplings for the aircraft industry and parts therefor (R. 1265).

The couplings manufactured by the Defendants are identical with those manufactured by Plaintiff.

The Accused Structures.

The structures here charged as infringements of the Parker patent are the tube couplings or fittings sold by Defendants Masters and Collins. They are sold by Masters and Collins for use in aircraft and comply with the Air Force-Navy standards applicable to such couplings (Finding of Fact XI, R. 84). The dimensions of these standard couplings are given in what are known as the "AN" specification drawings (R. 1414-9), which are the joint Air Force-Navy specifications.

We here seek recovery only for couplings sold for commercial use, as distinguished from governmental use. In every respect here material, the couplings of size 8 and larger are identical and are of the construction shown in Chart 6 inside the back cover of this brief (see specification drawings, R. 1415-1417). These couplings are charged to infringe claim 2 of the Parker patent.

The size 2 to size 6 couplings include the additional feature of the Parker "differential angle" as shown by the fragmentary "detail A" drawing at the upper right corner of the sleeve specification drawing (R. 1416). The con-

struction of these couplings is shown in Chart 7 inside the back cover of this brief. These couplings are charged to infringe all the claims of the Parker patent.

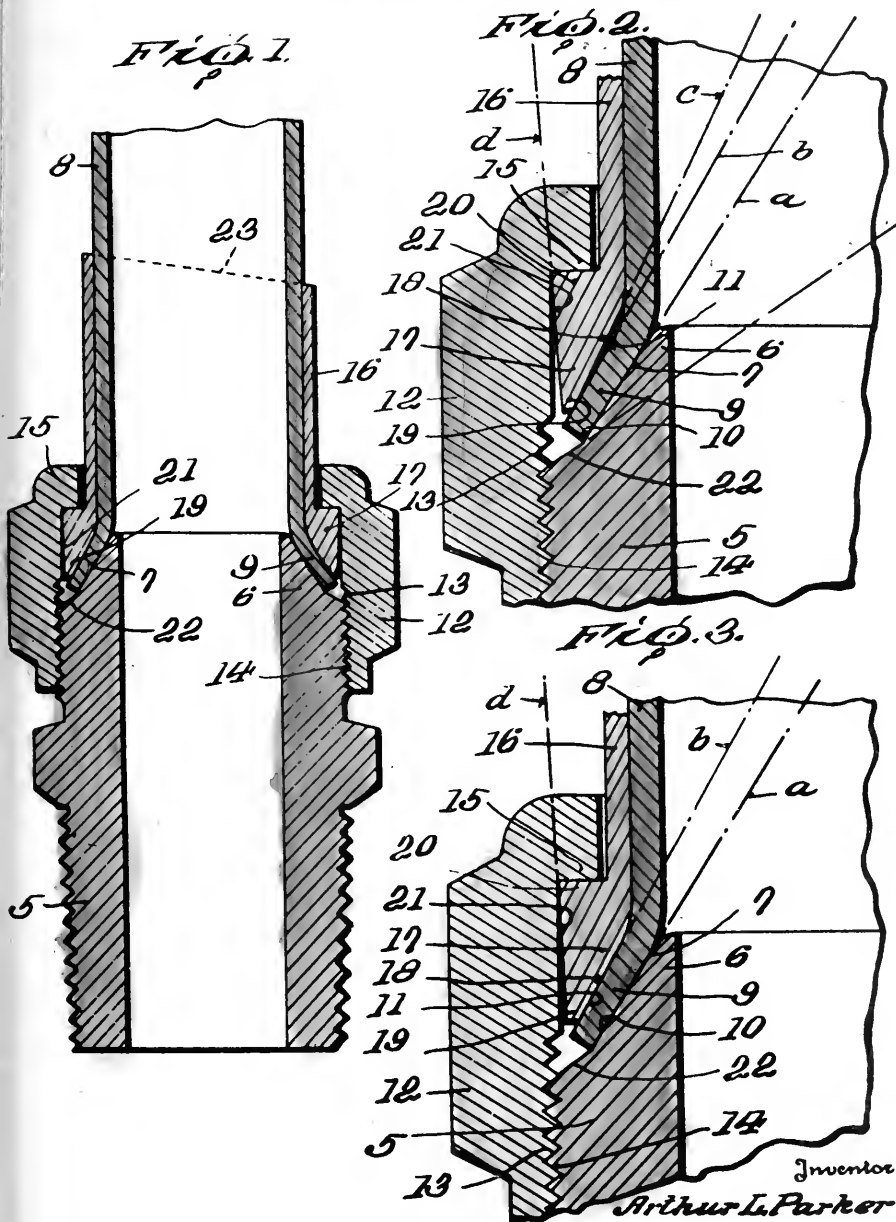
Aug. 20, 1940.

A. L. PARKER

2,212,183

TUBE COUPLING

Original Filed March 2, 1938

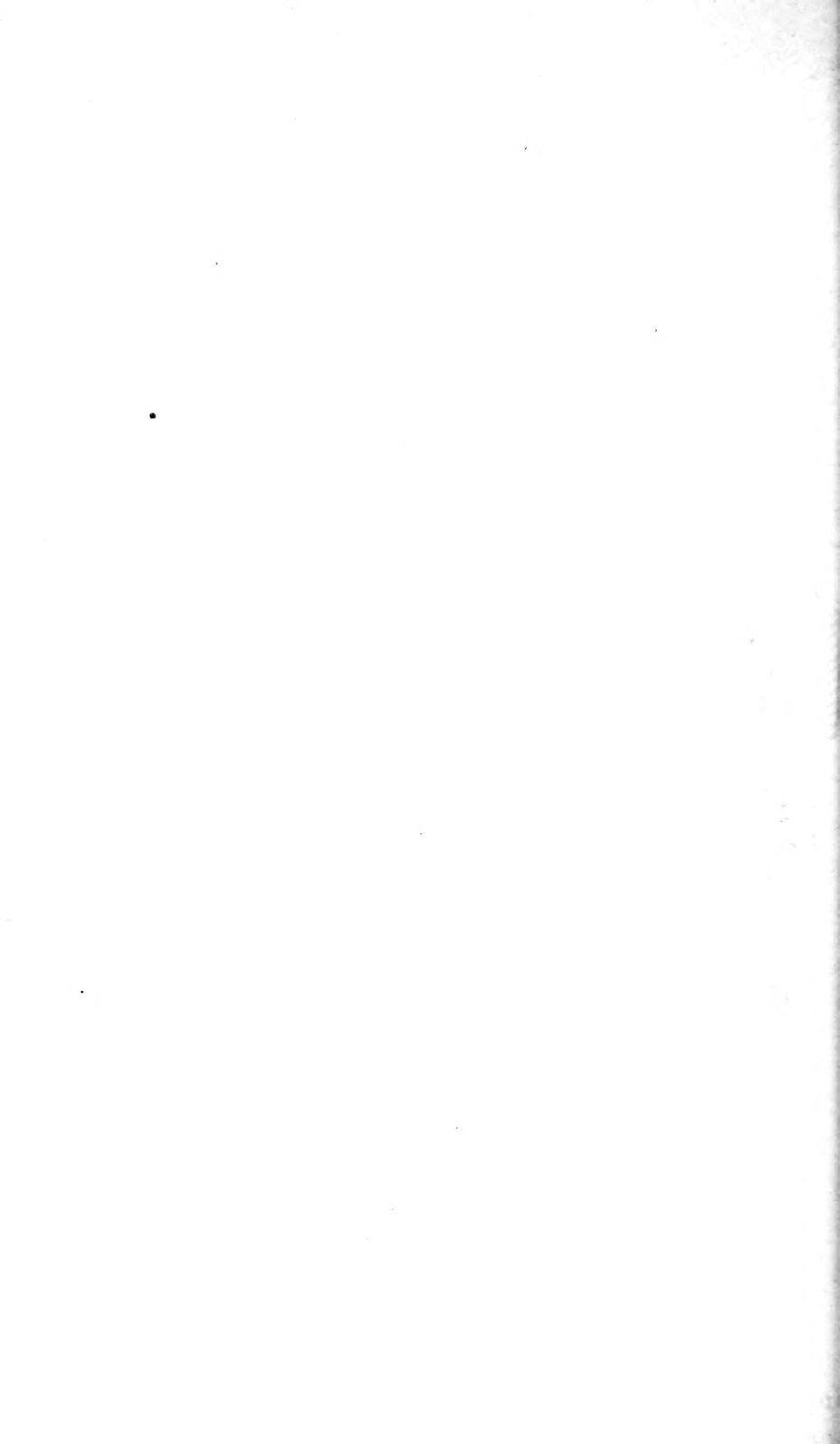


By

Mason & Porter

Attorneys

Part 1 -- The Parker Patent Shows a Coupling or Fitting Connect Detachably the Flared End Of a Tube.



Parker Patent No. 2,212,183.

The Parker patent drawing, reproduced opposite this page, shows the structure of the Parker coupling. The purpose of the coupling is to secure the flared end of tube 8 (blue) to the tapered seat 7 of the body member 5 (yellow) in a fluid-tight, secure, detachable connection. This is accomplished by the clamp nut 12 (green) which is threadedly received by the body member 5 (yellow) and, when the coupling is in tight condition, pulls the coupling sleeve 16 (red) over the flared end of the tube 8 (blue) to secure the tube in a snug, releasable fit capable of withstanding the enormous pressures encountered in aircraft hydraulic fittings even under adverse conditions of maintenance and vibration.

Figure 2 of the patent drawings shows the coupling in the "finger-tight" condition where the clamping pressure developed by nut 12 is very small. Figure 3 of the patent drawing shows the coupling in the fully tightened condition. As is discussed in further detail hereafter, the sleeve 16 (red) flexes in response to the clamping nut pressure and simultaneously extrudes or deforms the end of the flare 9 (blue) to achieve a unique, highly effective, seal.

The major elements of the Parker patent coupling—the member 5 (yellow), the clamp nut 12 (green), and the sleeve 16 (red)—are generally similar to elements used in prior art couplings (*i. e.* Parker patent No. 1,977,240, R. 1344). It is the position of Plaintiff that Parker, in patent 2,212,183 here in suit, was the first to teach the "sleeve head" angle and the "differential" angle. It is also the

position of Plaintiff that these two advances over the prior art created such a major improvement in performance over all prior couplings that they constitute invention and that the Parker patent is valid and infringed.

Aug. 20, 1940.

A. L. PARKER

2,212,183

TUBE COUPLING

Original Filed March 2, 1938

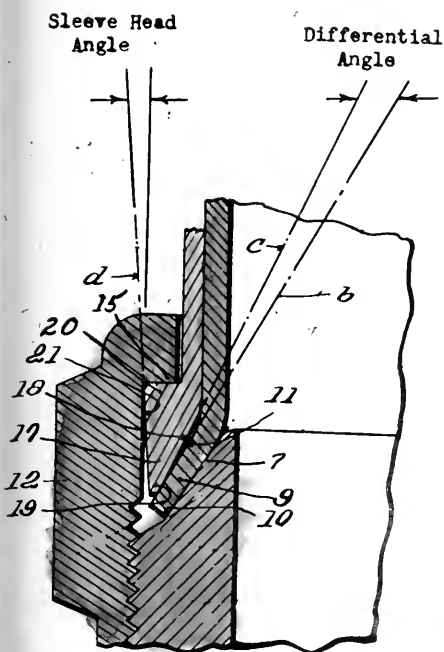


FIG. 2.

"FINGER TIGHT "

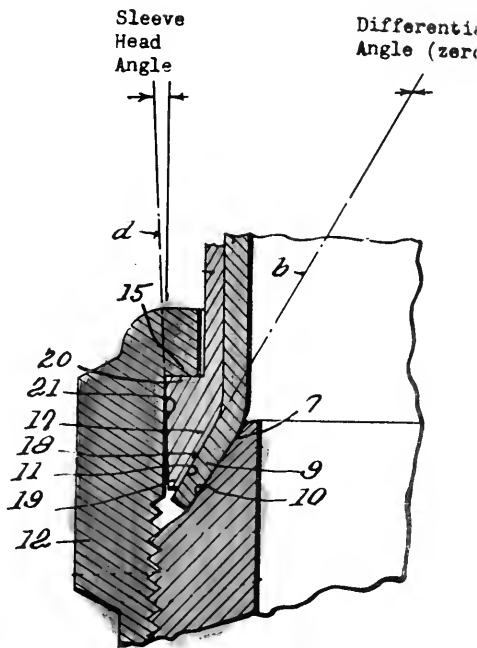
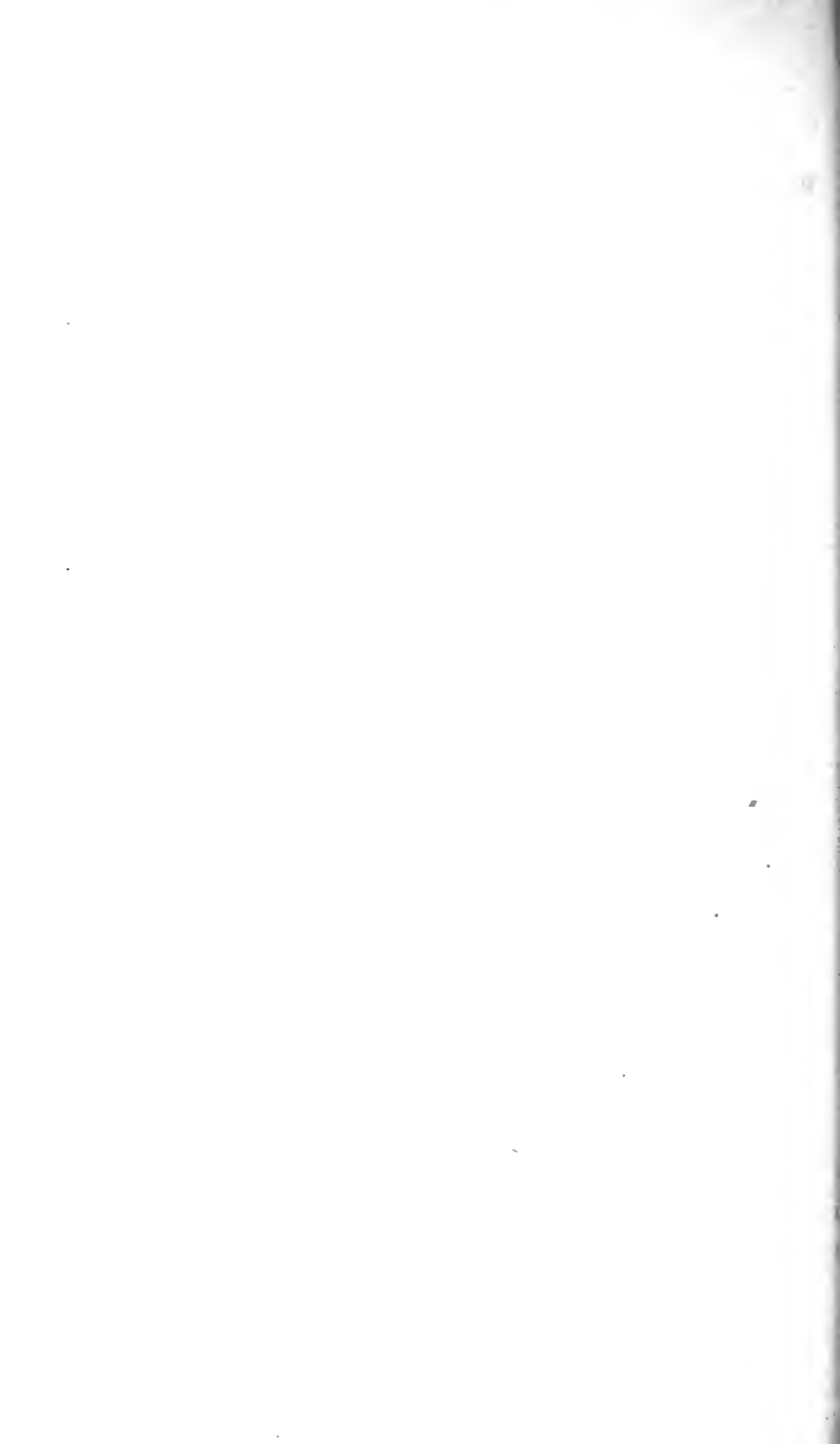


FIG. 3.

FULLY CLAMPED

Chart 2 -- The Sleeve Head Angle Is Reduced and the Differential Angle Disappears Because Of Sleeve Flexure and Deformation Of the Tubing As the Coupling Is Adjusted To Fully Clamped Condition.



When the Parker Coupling Is Drawn Tight, the Sleeve Head Angle Is Reduced in Magnitude by Sleeve Flexure and the Differential Angle Disappears Because of Sleeve Flexure and Deformation of the Tubing Flare.

Chart 2, opposite this page, consists of Figures 2 and 3 of the Parker patent with explanatory legends added and unnecessary reference numerals removed. As pointed out in the patent (R. 1326), Figure 2 shows the partially assembled or "finger tight" condition of the parts where the clamp nut (green) exerts very small clamping pressure. Figure 3 shows the parts in the "fully clamped condition" after tightening with a wrench (Patent, R. 1326).

As shown on the drawing, the sleeve head angle is formed by a taper on the edge 21 of the sleeve head 17 (red). As a consequence of this taper, the toe end 19 of the sleeve head is at a greater spacing from the bore of the clamp nut than is the opposite or shoulder end of the sleeve. When the coupling is drawn to the tight condition of Figure 3, the clamp nut 12 (green) forces the shoulder on the sleeve head (red) downwardly so that the sleeve head expands or spreads at the lower end, bringing the tip 19 closer to the bore of the clamp nut while the upper end of the head spreads very little. This flexure results in a reduction of the sleeve head angle from its initial value to a smaller value.

The Parker patent describes this effect as follows:

"* * * upon continued application of end thrust by the screwing on of member 12 and engagement of the clamping shoulders 15 and 20, the head 17 will be spread or displaced radially outwardly to store gripping tension in said head and move forwardly along the flared end of the tube to cause the clamping surfaces 11, 18 and 7, 10 to tightly contact throughout the

whole of their respective areas. During the displacement or outward spreading of the head 17 the wall 21 thereof will approach the adjacent wall of the sleeve member 12, but the degree of taper of said head wall is such that it will never contact and bind against said sleeve member wall. * * *” (R. 1326, Col. 1, ll. 18-33.)

“* * * In other words, the inner flare surface of the sleeve will yieldingly clamp the flared tube end while unlimited expansion of that portion of the head adjacent the clamping shoulder will be prevented.” (R. 1326, Col. 1, ll. 43-47).

The differential angle is determined by the difference between the slope or bevel of the exterior of the tube flare 9 (blue) and the slope or bevel of the interior of the sleeve head 17 (red). The former is indicated by the line b, the latter by the line c. The angular difference between these lines is the differential angle. When the coupling is drawn to the tight condition of Figure 3, the sleeve head 17 (red) is pressed into the tubing flare 9 (blue) from the initial toe contact to a full seating engagement as the flare is deformed and as the sleeve flexes. The differential angle then becomes zero and disappears.

The Parker patent lists the differential angle among the objects of the invention, as follows:

“* * * a tube coupling * * * wherein the outer clamp member engaging the flared end of the tube is so dimensioned and shaped that contact is first made at the free end of the clamping member whereby the clamping member is caused to expand, thus bringing the entire clamping surface into intimate contact with the outer surface of the flared end of the tube with a resultant tight and efficient seal.” (R. 1325, Col. 1, ll. 14-23.)

The Parker Patent Coupling Has Enjoyed Unqualified Commercial Success.

Millions of couplings have been manufactured by Parker alone in accordance with the patent here in suit (R. 532). The present record reveals only one insignificant application of other couplings to modern airplanes (R. 698-9), and that was in connection with a small personal plane intended for the general public. All military and commercial planes use the Parker couplings exclusively.

During World War II, the government adopted certain fittings as standard for Army-Navy use (R. 380) which became commonly known as the "AN" fittings. The fittings sold by Defendants and here accused are of this type (Finding of Fact XI, R. 84). These fittings included the sleeve head and differential angles and hence presented an infringement problem. During the war, Parker gave formal letters of release to the military authorities at their request to free the government and its suppliers from all patent infringement charges based on the AN fittings or the predecessor AC 811 fitting which, by 1941, utilized essentially the same construction (R. 1401-07).

The Defendant Masters started manufacturing complete couplings, including sleeves, in the fall of 1941, after the war program was adopted (R. 641). The drawings he used for such manufacture originated with Parker (R. 641). Collins started selling about February 1942 (R. 1265-6).

The present suit is brought against post-war sale to commercial users of the couplings Masters and Collins commenced manufacturing and selling during the war under the permission granted by Parker. The suit does not involve any claims against Defendants for sales to the government, either during the war or thereafter.

The Decision Below.

Judge Westover held that the Parker patent is fatally defective because the claims use the words "so shaped" and do not contain a description of the invention in such "full, clear, concise and exact terms as to enable any person skilled in the art or science to which it appertains * * * to make, construct, compound, and use the same" (R. 68). He further held that the specification is defective because "No one, taking the patent and not using the illustrations, could make the sleeve in question 'so shaped' that it would produce the results claimed for it, without independent experimentation" (R. 70). Judge Westover further held that the Parker patent is invalid for want of invention (R. 85).

The District Court made no decision on infringement.

SPECIFICATION OF ERRORS.

The errors relied upon and urged in this appeal are as follows:

1. Holding that United States Letters Patent No. 2,212,183, issued to Arthur L. Parker of Cleveland, Ohio, on August 20, 1940, is invalid.
2. Holding that the improvements of Parker Patent No. 2,212,183 are not defined in the patent claims.
3. Holding that the descriptive portion of Parker Patent No. 2,212,183 does not describe either the sleeve head angle or the differential angle nor illustrate the same in the drawing in such full, clear, concise, and exact terms as to enable any person skilled in the art or science to which it appertains to make, construct or use the same.
4. Holding that the claims of Parker Patent No. 2,212,183 fail to particularly point out and distinctly claim

the part, improvement, or combination claimed to be the discovery.

5. Holding that the recitations in each of the claims of Parker Patent No. 2,212,183 with respect to the shape of the parts fail to particularly point out and distinctly claim the part, improvement, or combination constituting the invention.

6. Failing to hold that all of the parts described in the claims of Parker Patent No. 2,212,183 coact in a combination not shown in the prior art to produce a new result.

7. Refusing to hold that the prior art relied upon in finding 9 (R. 82) does not disclose the relationship of the outer surface of the sleeve head and the inner surface of the nut and fails to disclose the differential angle between the inner surface of the sleeve head and the tube flare shown and disclosed in Parker Patent No. 2,212,183.

8. Holding that Appellees have independently engaged in the business of manufacturing and/or supplying nuts, bodies, and sleeves separately but not as assembled fittings to ultimate users and failing to hold that Appellees have sold nuts, bodies and sleeves as a group in a single transaction.

9. Finding that neither the description, drawings, nor claims of Parker Patent No. 2,212,183 contain dimensions, proportions, or angular relationships corresponding to the dimensions, proportions or angular relationships contained in the government specifications under which the accused fittings and parts were made or sold.

10. Holding that no one, by reference to the Parker Patent No. 2,212,183, could produce a fitting which would achieve the results called for by the patent without experimentation.

11. Holding that the contribution of Parker Patent No. 2,212,183 to the art is extremely narrow and that the

language of the claims is broad and ambiguous and broader than the invention.

12. Holding that the claims of Parker Patent No. 2,212,183 are functional at an exact point of novelty and lacking in essential structural description.

13. Holding that Plaintiff attempted to enlarge the claims of the patent in suit.

14. Failing to hold that Parker Patent No. 2,212,183 is infringed by the accused devices.

15. Holding that the differences disclosed and claimed in Parker Patent No. 2,212,183 over the prior art are merely the work of a skilled mechanic and do not involve patentable invention.

16. Failing to hold that the changes made in Parker Patent No. 2,212,183 over the prior art with respect to the relationship of the outer surface of the sleeve head and the inner surface of the nut and the differential angle between the inner surface of the sleeve head and the tube flare give rise to a new coaction of the parts and a new combination rising to the dignity of invention and patentable.

17. Failing to hold the changes made in Parker Patent No. 2,212,183 over the prior art with respect to the relationship of the outer surface of the sleeve head and the inner surface of the nut and the differential angle between the inner surface of the sleeve head and the tube flare are properly defined in the patent claims and in a manner complying with Section 4888 R. S.

18. Holding Parker Patent No. 2,212,183 invalid because the claims therefor do not comply with Section 4888 R. S. 35 U. S. C. A. 33 in accordance with the statements in *Sales Affiliates, Inc. v. Hutzler Bros. Co.*, 71 F. Supp. 287; *Continental Paper Bag Co. v. Eastern Paper Bag Co.*, 210 U. S. 405; *Yale Lock Co. v. Greenlaw*, 117 U. S. 554; *Incandescent Lamp Patent Case*, 159 U. S. 465; *Halliburton*

Oil Well Cementing Co. v. Walker, et al., 329 U. S. 1; and *General Electric Company v. Wabash Appliance Corp.*, 304 U. S. 364.

ARGUMENT ON INVENTION.

We depart from the order of Judge Westover's opinion to consider first the issue of invention. We do this advisedly because an understanding of the Parker invention and its importance to the industry is a necessary frame of reference for consideration of the other issues of this case. The error of the District Court is attributable in a large measure to its complete failure to make this initial and basic inquiry.

We appreciate that a finding on invention is normally a finding of fact. However, in this case the findings are clearly erroneous and reversible because the facts decisive of the invention question are either formally admitted by Defendants or uncontradicted on the record. These facts, wholly ignored in the opinion and findings below, require reversal.

In *Cutter Laboratories v. Lyophile Cryochem*, 179 F. (2d) 80, 84 (1949), this Court reversed a finding on invention, even though the finding was based on a jury verdict. There, as here, the issue of invention did not turn on reconciling conflicting testimony and was accordingly open to review. Similarly, in *Chas. Peckat Mfg. Co. v. Jacobs*, 178 F. (2d) 794, 797 (C. A. 7, 1949), the court reversed a finding of non-invention because an examination of the prior art patents showed that the decisive feature of patentability was not in the art.

The lengthy opinion filed in this case (R. 65-77) does not discuss the prior art. It cannot do so and still reach the erroneous conclusion that the Parker patent is invalid for in this case, as in the *Peckat* case, the prior art fails

to disclose the crucial features of novelty—namely, the differential angle and the sleeve head angle.

It Is Undisputed On the Record That the Sleeve Head Angle and the Differential Angle Were Wholly New With Parker.

The record is perfectly clear that neither the sleeve head angle nor the differential angle were known to the art prior to Parker's invention. The following testimony of Defendant's expert Adams not only refutes any possible contention to the contrary but in addition is an admission that the sleeve head angle, one point of departure of Parker from the prior art, is embodied in the fittings here accused:

“Q. How do you rank the Bjorling publication?

A. Well, I would say it is the best anticipation of the tube fittings as they are actually built; that Patent 2,212,183 does not actually represent the fittings the way they are built. You ask me for the best anticipation of the patent.

Q. That is right.

A. I think this Bjorling reference is the best reference to the actual tube fittings.

Q. Does the Bjorling reference show an angle on the outside of the sleeve?

A. No.

Q. And do the fittings that are used by the Douglas Aircraft Company which you have here produced as samples in connection with Exhibits WW, XX, YY and AAA, provide an angle on the outside of the sleeve?

A. Yes, although we don't think it is important.

Q. I just am asking you now as a fact whether or not those exhibits did in fact include the angle on the sleeve.

A. Yes.

Q. And it is a fact that the Bjorling publication does not include an angle on the sleeve?

A. That is correct.

Q. And it is a fact that in the Bjorling publication, the drawing there illustrates a sleeve, the outer wall of the head of which is parallel with the inside wall of the nut throughout its entire length; correct?

A. Yes, correct.

Q. And in that respect, the Bjorling publication differs from the Parker patent in suit, which does not include an angle arrangement there on the outside of the sleeve?

A. That is correct.

Q. And in that respect, the fittings that you have here produced, or those here charged to infringe, likewise differ from the Bjorling publication in that they do provide an angle on the sleeve; correct?

A. Yes.

Q. And in respect to the Parker patent in suit and the fittings here charged to infringe, both do include an angle on the outside of the sleeve; correct?

A. Yes.

Q. And in the fittings here charged to infringe, the upper portion of the sleeve closely adjacent the region of contact with the nut is in closer relationship to the nut than at the lower end of the sleeve; correct?

A. Yes.

Q. And in that respect, the devices here charged to infringe follow the Parker patent and not the Bjorling fitting; correct?

A. In that respect, yes." (R. 779-781.)

Masters himself testified that the sleeve head angle is not in the prior art (R. 648). He later stated:

"* * * Can you tell me where that (the sleeve angle) was originated, so we have the complete story?

A. I believe that originated with Parker Appliance Company" (R. 651).

Even counsel for Defendants, when questioned by the Court with respect to the sleeve head angle, stated:

"Mr. Huebner: As far as I know the art, your Honor, this is the first disclosure of an angle of this character initially present between the outside of the sleeve head and the inside of the nut. * * *" (R. 458.)

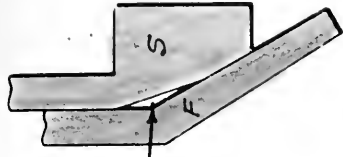
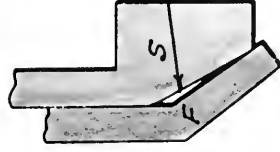
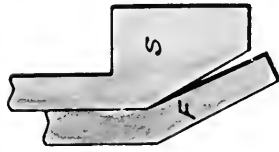
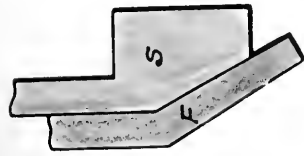
With respect to the differential angle, Defendants' own representations show that it is not only absent from the art but in addition that it is a point of similarity between the size 2 to 6 accused couplings and the Parker patented coupling. Chart 3 (taken from Defendants' Brief before the District Court*) shows this point clearly by means of cross-sectional sketches of the coupling constructions. The differential angle is present in only two sketches—the Parker patent in suit and the accused couplings.

Masters has testified that he did no independent research in connection with the couplings which he had manufactured (R. 1259-60). In fact, he admitted that the drawings he used for manufacture originated with Parker (R. 641) and that, prior to receiving the Parker drawings formally in 1943 (R. 1336), he had "filched" the information (R. 639). Masters also testified that with respect to the AN couplings Parker was the "father of this child" (R. 639). Collins testified that he has no engineering staff and that the fittings he sells are not of his design (R. 1286-7).

A Patent Is Presumed to be Valid. The Presumption Is Especially Strong Where, As Here, the Subject Matter of the Invention Is New.

It is settled law that a patent is presumed to be valid. As stated by the Supreme Court in *Mumm v. Jacob E.*

* Title, color, and typed notations added.

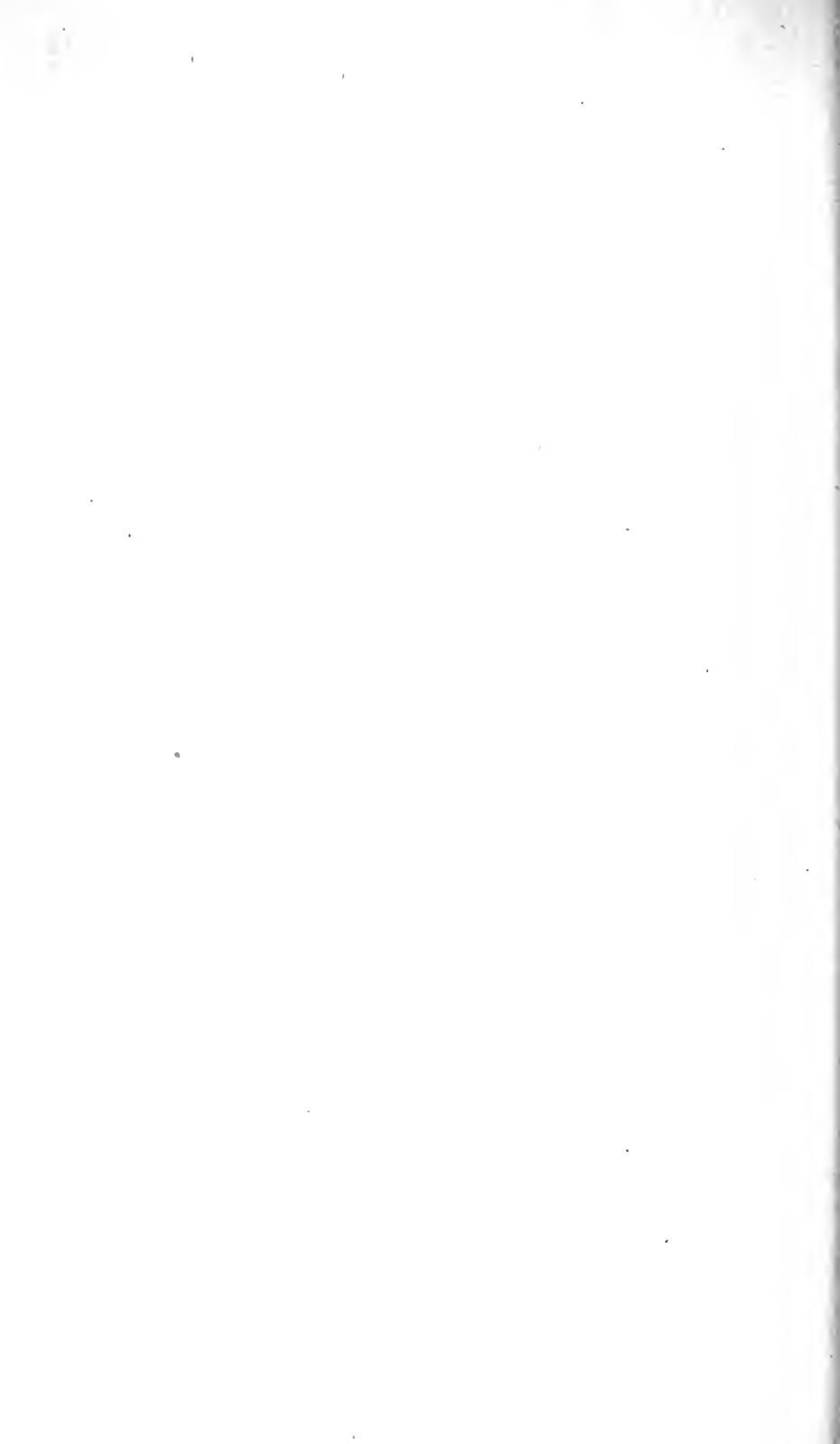


Differential
Angle

$S = \text{Sleeve} : F' = \text{Flare on Tubing}$

Pat. No. 1,893,442 (Pl's Exh. 25)	Prior Art	Pat. No. 1,977,240 (Pl's Exh. 26)	Prior Art	Pat. No. 2,212,183 (Def's' Exh. 'RR' Pl's Exh. 1)	Patent in Suit	Special AN. Std. Ftg. Alum. Bronze #2-6 (Def's' Exh. 'P' Pl's Exh. 70)	Accused Couplings (Sizes 2 to 6)
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Chart 3 -- The Differential Angle Is Not Shown In the Prior Art. It Is a Point Of Similarity Between the Smaller Sizes Of Accused Couplings and the Parker Patent Coupling.



Decker & Sons, 301 U. S. 168, 171 (1937), the burden of proving invalidity

“* * * is a heavy one, as it has been held that ‘every reasonable doubt should be resolved against’ (the Defendant) * * *.”

Or, as stated by this Court in *Bianchi v. Barili*, 168 F. (2d) 793, 795 (1948):

“* * * Before a patent can be declared invalid because of anticipation, its lack of novelty must be established beyond a reasonable doubt (citing cases).”

This Court applied the same rule in *Payne Furnace Co. v. Williams-Wallace Co.*, 117 F. (2d) 823, 826 (1941).

This presumption of validity is especially strong in the present case. There is no question of weighing prior art. **There is no prior art to weigh.** The credit that attends the Examiner’s determination of novelty is doubly significant where, as here, novelty of the crucial features of patentability cannot be disputed on the record.

Any holding of invalidity here demands a finding that the Patent Examiner was wrong—a finding wholly unsupported by any new evidence. The District Court made such a finding but it did so only by ignoring this fundamental deficiency and by giving no weight to the Examiner’s decision.

The Parker Coupling Was Developed After Many Efforts in the Aircraft Industry to Obtain a Satisfactory Coupling for Flared Tubes. It Replaced All the Prior Art Constructions.

The present record is replete with proof that the aircraft industry had long sought, prior to the Parker patent here in suit, a suitable coupling. The Army and Navy maintained sustained interest in the development of fittings over many years (R. 941-2). The nineteen patents and

publications relied upon by Defendants alone show the wealth of experience, both in the aircraft field and elsewhere, that had accumulated prior to the Parker invention (R. 43-44).

Most revealing of all, however, is the story told by Masters, party in interest to the Defendant corporation, who was engaged in research for an improved coupling for use in naval aircraft starting in 1932 (R. 563). One consequence of this research, undertaken as an employee of the Navy Department, was the development of the so-called NAF fitting. This fitting was manufactured and was used on naval aircraft. However, like all other coupling constructions, it was later discarded in favor of the Parker fitting and is now found only in older ships (R. 564).

Also, as early as 1935 Parker itself manufactured the so-called AC-811 fitting which is shown in patent 1,893,442 (R. 386-8, 1341). This fitting was used considerably but even it was later altered, in 1939 or 1940, to include the sleeve head angle feature of the patent here in suit (R. 501). In 1941 the differential angle was also added to the smaller size AC-811 fittings (R. 711).

Notwithstanding these sustained developmental efforts, the Armed Forces ultimately standardized on a coupling using the sleeve head and differential angles and have continued that standardization to the present time.

The District Court recognized these numerous efforts to develop improved fittings (R. 65, 73, 74, 76). Yet it inconsistently regarded this history as limiting rather than reinforcing the significance of Parker contributions. This is neither good sense nor good law.

It is classic patent law that the unsuccessful efforts of the past are strong evidence of inventive merit. For example, in *Hildreth v. Mastoras*, 257 U. S. 27, 34-35 (1921), the Supreme Court, affirming this Court, stated:

“* * * The history of the art shows that Dickinson

took the important but long delayed and therefore not obvious step from the pulling of candy by two hands guided by the human mind and will, to the performance of the same function by machine. The ultimate effect of this step with the mechanical or patentable improvements of his device was to make candy pulling more sanitary, to reduce its cost to one-tenth of what it had been before him, and to enlarge the field of the art. He was, therefore, a pioneer."

It is also classic law that under these circumstances what appears to be trivial or obvious is a very real invention because those in the art, who can be trusted to know the obvious, failed to take the step that solved the problem so long confronting the art.

In *Eibel Process Co. v. Minnesota & Ontario Paper Co.*, 261 U. S. 45 (1923), the inventive concept consisted of merely sloping the wire carrying the paper stock in a downward direction so that the natural tendency of the stock to go downhill aided the motion of the wire. The evidence showed that this very simple idea, which was "an obvious application of the principle that water will run downhill" (261 U. S. page 52), gave rise to a marked increase in the permissible rate of paper manufacture. The Supreme Court, relying on the fact that the industry long sought a faster paper making machine and had adopted the Eibel contribution, held that the Eibel patent was valid and infringed and that the Court of Appeals had erred in holding otherwise.

More recently, in *Goodyear Tire & Rubber Co. Inc., et al. v. Ray-O-Vac Co.*, 321 U. S. 275 (1944), the Supreme Court upheld a patent to an invention even more simple than that of Eibel, namely, a metal encased flashlight battery. In that case the inventor had the very simple concept that leakage and swelling in a dry cell battery can be prevented by the use of a retaining jacket of metal. The Court stated:

"Viewed after the event, the means Anthony adopted

seem simple and such should have been obvious to those who worked in the field, but this is not enough to negative invention * * *'' (321 U. S., page 279.)

Parker likewise taught new concepts—the sleeve head angle and the differential angle. These concepts are wholly new. As in the *Hildreth*, *Eibel* and *Goodyear* cases, these concepts were superficially simple. As in those cases, these concepts solved problems that long plagued the art. As in those cases, there is invention.

The District Court ignored these basic rules of law and common sense when he used the “continuing and everlasting search” in the industry as an excuse to invalidate the patent (R. 76). The decisive facts are that this research (including that of Masters) failed to produce the Parker advance before it was taught by Parker; the Parker advance was quickly adopted in the exacting aircraft field; and no device superseding the Parker advance has as yet been produced.* There can be no better demonstration of the true merit of Parker’s contributions.

The Army and Navy, After Searching For a Non-Proprietary Coupling, Nevertheless Standardized on the Parker Patented Couplings.

Defendants’ witness Masters testified that the Army and Navy sought “non-proprietary” couplings; namely, couplings that presented no patent problems (R. 563, 651). In fact, he participated in a search for such couplings (R. 563). Yet these organizations not only accepted Parker couplings but were forced, by the failure of other fittings to meet requirements, to standardize on their use to the exclusion of all other couplings (R. 1220). This occurred

* The only record evidence of a coupling for flared tubes, other than the AN coupling (or its equivalent, the revised AC-811 Parker fitting), in use on modern planes is the 300 Navion aircraft made by North American in 1945 and 1946 (R. 698-9). The choice of two-piece fittings for these small personal planes was dictated by cost and procurement considerations—not by performance (R. 699).

in 1941, only a year after the Parker patent issued (R. 380).

The decision to standardize was not made blindly. The evidence is undisputed that the couplings were recognized as proprietary by both government and industry. Prior to the AN standardization, Parker made the so-called AC-811 fitting which, by 1940, included the sleeve head angle feature of the patent here in suit (R. 478). The government sought, and received, a patent release from Parker on this fitting, a release effective for the duration of the war (R. 1401-1407). Parker granted specific releases to a large number of companies (R. 520-522). When this construction was adopted as an AN standardized fitting, this permission was continued.

Moreover, the government consistently referred to the couplings as "Parker type" fittings. This was done, for example, in the production report, Plaintiff's Exhibit 72, which contains this identification on every page (R. 1395-1400). It is hard to imagine a more impressive demonstration of the fact that the couplings were considered proprietary.

The Armed Forces not only standardized on the Parker type fitting but relied on Parker for the requisite drawings. Parker had more than five people doing nothing but sending out these drawings to manufacturers and users (R. 524). The drawings that guided the Defendant Masters in making the fitting here accused were sent from Parker to Masters under this program (R. 1336).

With respect to these drawings, Masters testified:

"* * * so then it became necessary for us all to have our drawings coordinated and the best place to coordinate them was, of course, to get them from Parker, who was the father of this child and they did supply the industry with drawings. But previous to that we had filched the information in one way or

another before, so we didn't need many from them'' (R. 639).

The industry itself considered the Parker couplings proprietary. Parker engaged in an active research and development program (R. 177) and, in 1942, before the AN standardization, Parker sold 80% of the available coupling business (R. 530). The inference is clear that the industry respected Parker's position that the fittings were proprietary. By 1944, however, when Parker had granted numerous letters of permission, Parker's share of the business was only 29 or 30% (R. 531).

The Civil Aeronautics Administration has suggested the use of the AN or Parker type fittings on commercial aircraft (R. 698).

The history of the adoption of the differential angle in the AN standard is particularly revealing. This feature was not included in the standards for the AC-811 Fitting (Predecessor to the AN Fitting). Defendants' expert witness Adams testified that in the fall of 1940, an airplane accident occurred and investigation definitely identified the cause as a broken coupling in the hydraulic system of the plane which prevented lowering the landing gear wheels (R. 711). Adams testified that he then recommended an additional bevel or angle on the sleeve of the smaller size fittings to obtain the differential angle (R. 711-712).

While the differential angle is used only on the smaller sized fittings, this experience is a conclusive demonstration of the significance of Parker's contribution.

Standardization by the Air Forces and Navy on the Parker structure—despite its recognized proprietary character—speaks eloquently of the importance of the sleeve head angle and the differential angle and the merit of the contributions made by Parker to the industry. The same

considerations that dictated this adoption by the Armed Forces dictate a holding here that Parker made an invention and an important one.

**The Parker Coupling Was Disclosed to the Trade in 1940.
In the Decade Since That Time No Superior Fitting Has
Been Developed.**

It is particularly significant that the record is devoid of any evidence of actual manufacture of a coupling replacing or superseding the Parker coupling. Parker's invention became public knowledge in 1940 when the patent issued (R. 1323). The trial below took place a decade later. The period was one of intense activity in aircraft development. Yet that intense development has not yet produced a fitting sufficiently good to replace the Parker coupling.

Moreover, Defendants' expert Adams testified that:

"We make experiments on any type of new fitting and parts in trying to improve airplanes. When we find one that appears enough better than previous article, than the article currently in use, when it is enough better to justify the disturbance to our manufacturing that is caused by the introduction of a new part, we then try to get this adopted as a standard and try to change over to its use, if it is sufficiently better to justify a manufacturing disturbance." (R. 744.)

Adams was right—but all the experiments on "any" type of new fitting in over a decade have failed to produce a fitting better than that of the Parker patent. We cannot conceive of more persuasive evidence of the merit of Parker's contribution.

In *Payne Furnace and Supply Co. v. Williams-Wallace Co.*, 117 F. (2d) 823 (1941), this Court, holding a patent valid, stated:

"Stadtfield's improvement occurred within the con-

finer of an ancient art. Its immediate and wide commercial adoption is powerful evidence of invention as contrasted with the exercise of mere mechanical ingenuity. Compare *Paramount Publix Corporation v. American Tri-Ergon Corporation*, 294 U. S. 464, 474."

The invention in the *Payne* case related to smoke pipe constructions, an art as old as the earliest stove pipe. The Parker invention relates to hydraulic pipe connectors, an art equally old. In this case, as in the *Payne* case, there was "immediate and wide commercial adoption" that is "powerful evidence of invention." Here we have the additional factor, not present in the *Payne* case, of continuous efforts to develop an improved fitting, all without avail.

It is significant that the "ancient art" of the *Payne* case went back to 1885 (117 F. (2d) at p. 825). Here the "ancient art" goes back to 1865 (R. 12).

The industry has further recognized the Parker contribution by taking patent licenses. The Weatherhead Company, one licensee, has been paying \$1,800 a quarter in royalties alone (R. 534). The Deutsch Company has taken an agreement with a minimum royalty of \$12,500 yearly for three years (R. 537).

The Parker Coupling Has Met, to the Exclusion of Other Couplings, the Demands of the Aircraft Industry. These Demands Are Exceedingly Severe.

We are prepared to explain the importance of the Parker contribution in terms of the improved results achieved as well as by its impact on the art. Any such explanation, however, would be futile without some mention of the severe coupling problems encountered in aircraft service. It is these problems that impart to the Parker coupling the very extensive acceptance it has enjoyed.

The witness Bergh, chief staff engineer of Republic Aviation Corp., testified:

“A. Yes, I think that all the troubles we have with airplanes—and by ‘troubles’ I mean big troubles, either serious damage to the airplane or loss of the plane or fire as a result of fluid line leaks—I would say that things such as these, and other relatively small things when you see them, are the cause—not only fluid line connections, but I mean spacing electric wires properly and putting insulation on them—things of that type I think are responsible for a lot more than fifty percent, and I should say seventy-five percent of the real troubles that we have on our airplanes, aside from accidents due to the planes themselves. Putting it another way, airplanes do have accidents, and the majority of course are due to the pilot’s error or to the weather, but subtracting that kind of accidents, which are caused by either the pilot or the weather, improper information given to him over the radio or something like that—those are caused to a much higher degree than would be caused by the structural weakness of the airplane itself.

“I might say that our own experience has been that, when we have an accident, ninety percent of the time it is due to faulty installation rather than structural design, so it is the little things that make the big difference, and I have always found that if you lick the little things, they create the majority of our headaches.” (R. 1206.)

The evidence of the severe operating conditions encountered in aircraft service is uncontradicted. The witness Amon, a graduate engineer of many years experience in aviation (R. 941-3), testified that the fittings are used in the fuel lines, landing gear operating mechanisms, wing flap raising and lowering devices, propeller feathering mechanisms, and in the instrument systems (R. 931-2).

In the fuel systems the couplings or fittings carry fuel from storage tanks to the engines. Interruption of fuel

means loss of engine power—leakage creates an exceedingly serious fire hazard (R. 938-9).

In the hydraulic systems, the couplings are called upon to withstand enormous pressures—3000 lbs. PSI on modern planes (R. 933). Leakage, even at these pressures, may mean an inoperative landing gear with the consequent need for a dangerous “belly landing” (R. 938). In fact, it was just such an accident that led to adoption of the differential angle feature in the size 2 to size 6 fittings (R. 711).

In other applications, the couplings perform equally vital functions.

The couplings must not only perform their intended functions, but, in addition, they must do so under adverse conditions. Airplanes are notorious for the vibrations they produce—vibrations evident even to the casual rider in a cushioned cabin (R. 936). Water hammer effect, at tremendous pressures, adds to this vibration (R. 934-8). Obviously, a coupling that will not stay tight under this vibration is useless. It is equally obvious that a high degree of ingenuity is required to provide a coupling that will withstand this vibration and shock.

Moreover, the evidence is undisputed that the couplings must not only have a high degree of reliability under adverse operating conditions but, in addition, they must be capable of withstanding the physical abuse of overtightening and be capable of repeated assembly and disassembly without harm. In actual service, the couplings are tightened and retightened by mechanics in the field, who may or may not have the equipment, technical data, or ability to measure the degree of tightening (R. 211). The AN specifications require the coupling to withstand fifteen assemblies and disassemblies without damage and endure excess tightening just because of this problem (R. 210, 511, 978).

The witness Middleton, presently employed at Lockheed and for years head of the Hydraulics Laboratory of the Army Air Corps at Wright Field, Dayton, Ohio (R. 882), testified that with the P-36 type airplane there were a large number of accidents and deaths from landing gear failure. These were due to tubing failures resulting from overtorquing or overtightening of couplings (R. 888-9). He testified also that fittings with the sleeve head angle tend to overcome failures of this kind (R. 890).

These severe performance requirements must not only be met in aircraft couplings but they must be met without excessive weight or size. Some 6000 couplings are installed in a large plane (R. 1052). The size of each coupling, and its ease of adjustment and installation, are important because couplings must be placed in confined spaces in airplanes (R. 950-1).

For over a decade, the aircraft industry has found that these requirements have been met best by the Parker coupling—so much so that there is no record of any other coupling enjoying approval by the Air Force and Navy or even being used extensively in any commercial production.

The Sleeve Head Angle, New With Parker, Gives Rise to Hoop Tension in the Sleeve Head to Minimize Nut Jamming. At the Same Time the Sleeve Head Angle Prevents Loosening of the Coupling Under Vibration.

One of the Parker contributions to the art is the sleeve head angle shown in Chart 2, page 9, this brief. This angle is formed by tapering the sleeve head in relation to the bore of the clamp nut so that at the seating portion, the sleeve head is relatively close to the bore in clamp nut 12 and at the toe portion 19 the sleeve head is at a relatively great spacing from the bore.

The patentee Parker very clearly describes in his specification how, when the coupling is drawn tight, the sleeve head angle is reduced in magnitude as shown in Fig. 3 of the patent (R. 1326). There is no dispute in the present case that the sleeve head angle makes possible this flexure which is a progressive flexure creating a "hoop tension" as the clamp nut is tightened. In fact, the tests made by Masters show that in every case when the clamp nut is tightened, the toe end of the sleeve head expands to a substantially greater extent than the seating end (compare expansion measurements at A and C, Defendants' Exhibit S, R. 1426). This is proof positive of the action of this Parker feature. The witness Wolfram also testified that the sleeve undergoes varying degrees of expansion along its length (R. 273-4).

The sleeve head angle was wholly new with Parker. Even Masters admitted this to be the fact (R. 651).

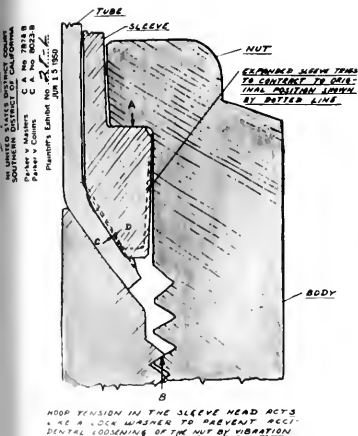
The witness Wolfram, who has had more than a dozen years experience with fittings (R. 179), gave detailed testimony with respect to the advantages of the particular hoop tension associated with the sleeve head angle. These advantages include:

1. Lock washer action to prevent loosening of the coupling under vibration (Exhibit 28L, Chart 4, this brief; R. 243).

Defendants' witness Bumb testified that he experienced noticeably greater coupling difficulty on the F-86 fighter than the B-45 bomber because of the greater vibration and difficulty of getting at fittings in the former plane (R. 702-3). This lock washer action also makes the amount of nut turning less critical (R. 249, 1362). Masters himself testified that there was a "great deal of trouble" with over-tightening of fittings (R. 582).

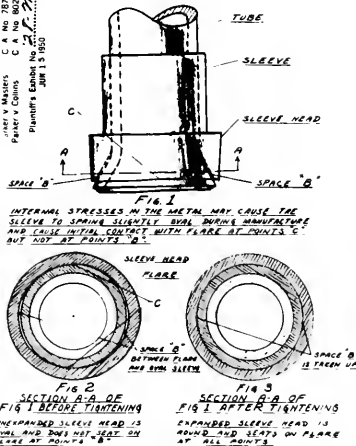
2. Free expansion of the sleeve head to correct out-of-round sleeves (Exhibit 28M, Chart 4, this brief; R. 246).

ADVANTAGES OF SLEEVE HEAD ANGLE
HOOP TENSION LOCKS NUT
AGAINST LOOSENING

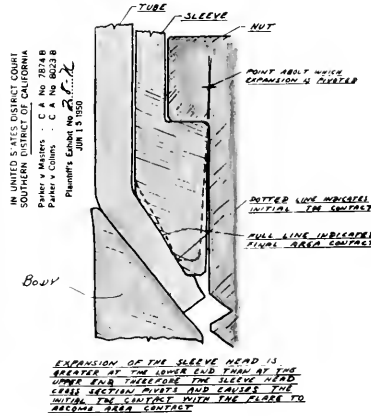


IN UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF CALIFORNIA
Parker v Masters C A No 7874 B
Parker v Collins C A No 8023 B
Plaintiff's Exhibit No. 2
JUN 15 1950

ADVANTAGES OF SLEEVE HEAD ANGLE
FREE EXPANSION CORRECTS
OUT-OF-ROUND SLEEVES

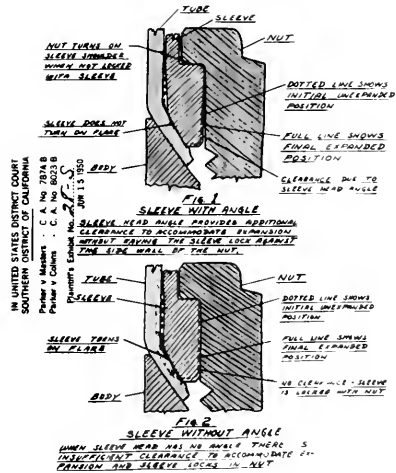


ADVANTAGES OF SLEEVE HEAD ANGLE
EXPANSION CONVERTS TO E
CONTACT TO AREA CONTACT



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ADVANTAGES OF SLEEVE HEAD ANGLE
ANGLE PROVIDES ADDITIONAL CLEARANCE
TO AVOID LOCKING OF SLEEVE TO NUT



IN UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF CALIFORNIA
Parker v Masters C A No 7874 B
Parker v Collins C A No 8023 B
Plaintiff's Exhibit No. 2
JUN 15 1950

Chart 4 -- The Sleeve Head Angle, Which Was Wholly New With Parker, Provides a Hoop Tension Sleeve Flexure. This Flexure, and the Resultant Advantages, Accounts For the Adoption Of This Parker Feature By the Industry.

3. Additional clearance to prevent locking the sleeve to the clamp nut while at the same time providing maximum seating area between the clamp nut and the sleeve (Exhibit 28S, Chart 4, this brief).

4. Automatic conversion of the line contact between the toe of the sleeve head and flare, before tightening, to the conical contact of substantial area after tightening (Exhibit 28N, Chart 4, this brief; R. 247).

Other important advantages of the sleeve head angle are explained in the charts, Exhibits 28J to 28W (R. 1357-70), testified to by Wolfram.

The importance of these advantages in a practical coupling is shown decisively by the fact that the AN specifications very clearly require a one degree taper in the sleeve head (R. 1416). If this taper is not necessary or desirable, why is it required by the specifications? The Parker patent has been in existence since 1940 and has been consistently brought to the attention of the industry by Parker. Yet the sleeve head angle is not considered optional—it is required.

The Parker Differential Angle Provides an Initial Toe Contact That Not Only Cooperates With the Sleeve Head Angle to Facilitate Sleeve Flexure But Also Independently Aids in Effecting a Tight Secure Seal.

The differential angle is defined by the lines b and c of Figure 2 of the Parker patent drawing (see Chart 2, page 8a, this brief). It disappears when the clamp nut (green) is drawn tight to flex the sleeve (red) to a full seating contact with the tube flare (blue). The parts are shown in this fully clamped position in Figure 3 of the Parker patent drawing (page 9, this brief). Although transitory in character, the differential angle imparts several very important advantages to the Parker structure, including:

1. Small clamping stress is exerted at the heel of

the flare even though a firm conical seating engagement is ultimately obtained over the full beveled area of the sleeve (Exhibit 28AA, Chart 5, this brief).

Defendants' expert Adams himself had the experience of an accident due to coupling failure from excessive heel pressure (R. 710-2). The differential angle was adapted in size 2 to size 6 fittings to prevent further accidents of this kind (R. 711).

2. The initial toe contact facilitates formation of the holding nub in the tube flare (Exhibit 28Y, Chart 5, this brief).

As shown in the bottom two sketches of Exhibit 28Y, neither initial full contact, nor an initial heel contact (the two prior art arrangements) gives rise to digging-in action that facilitates nub formation. Moreover, the extruded metal forming the nub when the differential angle is provided is taken primarily from the tip of the flare where it has minimum tendency to weaken the flare.

3. The initial toe contact, being at the outer portion of the sleeve head, provides a greater moment arm to flex the sleeve in hoop tension (Exhibit 28DD, Chart 4, this brief).

In this respect the sleeve head angle and the differential angle coact to achieve an improved action not possible with either alone.

Simplicity Is Not the Test of Invention. Parker Cannot be Denied the Status of Inventor Because His Changes in Retrospect Seem Simple.

Defendants have persistently urged that the Parker contributions of "sleeve head angle" and "differential angle" are merely matters of clearance and so simple that they cannot support a patent. This is a false issue. The point is not whether, in retrospect, Parker made superficially simple changes—it is whether the changes Parker

ADVANTAGES OF DIFFERENTIAL ANGLE

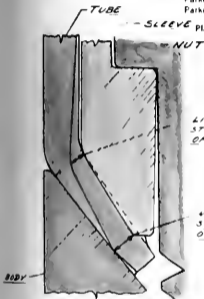
TOE CONTACT RESISTS VIBRATION FAILURE

IN UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF CALIFORNIA

Parker v Masters C A No 7874 B
Parker v Collins C A No 8023 B

Plaintiff's Exhibit No 28-AA

JUN 13 1950



LITTLE CLAMPING
STRESS AT HEEL
OF FLARE

MAXIMUM CLAMPING
STRESS IS AT TOE
OF FLARE

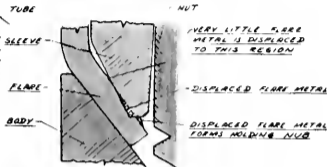
INITIAL TOE CONTACT INCREASES RESISTANCE TO BREAKING OF THE TUBE DUE TO VIBRATION FATIGUE BY CONCENTRATING MOST OF THE CLAMPING STRESS AT THE TOE OF THE FLARE WITH A GRADUALLY DECREASING STRESS TOWARD THE HEEL WHERE VIBRATION STRESSES CONCENTRATE

ADVANTAGES OF DIFFERENTIAL ANGLE

TOE CONTACT FACILITATES FORMATION OF HOLDING NUB

IN UNITED STATES DISTRICT COURT
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Plaintiff's Exhibit No 28-B

JUN 13 1950



VERY LITTLE FLARE
METAL IS DISPLACED
TO THIS REGION

DISPLACED FLARE METAL

DISPLACED FLARE METAL
FORMS HOLDING NUB

FIG 1
INITIAL TOE CONTACT

TOE CONTACT UTILIZES MINIMUM FLARE
METAL DISPLACEMENT AND HENCE MINIMUM
WRENCH TORQUE TO FORM HOLDING NUB

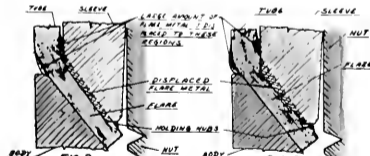
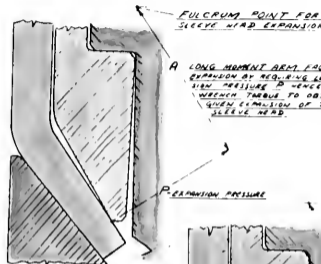


FIG 2
INITIAL FULL CONTACT
UTILIZES LESS DISPLACED FLARE
METAL HENCE REQUIRES MORE
WRENCH TORQUE TO FORM NUB

FIG 3
INITIAL HEEL CONTACT
UTILIZES A MINIMUM OF DIS-
PLACED FLARE METAL HENCE REQUIRES
MAXIMUM TORQUE TO FORM NUB

ADVANTAGES OF DIFFERENTIAL ANGLE

TOE CONTACT FACILITATES EXPANSION OF SLEEVE HEAD



FULCRUM POINT FOR
SLEEVE HEAD EXPANSION

A LONG MOMENT ARM FACILITATES
EXPANSION BY REQUIRING LESS EXPAN-
SION PRESSURE P HENCE LESS
WRENCH TORQUE TO OBTAIN A
GIVEN EXPANSION OF THE
SLEEVE HEAD.

P EXPANSION PRESSURE

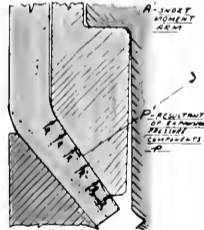
FIG 1
INITIAL TOE CONTACT
RESULTS IN READY EXPANSION
AT LOW WRENCH TORQUE BUT
EVENTUAL FULL CONTACT RESISTS
OVER-EXPANSION AT HIGH TORQUE

IN UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF CALIFORNIA

Parker v Masters C A No 7874 B
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Plaintiff's Exhibit No 28-B

JUN 13 1950



A SHORT
MOMENT
ARM

P RESULTANT
OF EXPANSION
PRESSURE
EQUIVALENTS
P

FIG 2
INITIAL FULL CONTACT
REQUIRES HIGHER WRENCH TORQUE
TO OBTAIN INITIAL EXPANSION

Chart 5 -- The Differential Angle, Which Defendants' Expert Adams Found Essential, Permits a Nub-Defining Deformation Of the Flare Without Weakening the Vital Heel Portion Of the Flare. It Also Coacts With the Sleeve Head Angle To Facilitate Sleeve Flexure.



did make had a significant impact on the art. The latter test compels a conclusion of invention.

One cannot test invention by after-the-fact simplicity. Monday morning quarterbacking on this point is forbidden in the patent law.

This is not only a proposition of law, but a matter of plain, common sense. If Parker's ideas were so obvious, why didn't the workers in the art seize upon them long before Parker?

In the metal encased flashlight battery decision, the Supreme Court stated:

"Viewed after the event, the means Anthony adopted seem simple and such as should have been obvious to those who worked in the field, but this is not enough to negative invention."

Goodyear Tire & Rubber Co. v. Ray-O-Vac Co.,
321 U. S. 275, 279 (1944).

Application of this common sense reasoning can only lead to a finding that Parker made an invention.

Also in *Loom Co. v. Higgins*,* 105 U. S. 580, 591-592, (1882) the Supreme Court said:

"At this point we are constrained to say that we cannot yield our assent to the argument, that the combination of the different parts or elements for attaining the object in view was so obvious as to merit no title to invention. Now that it has succeeded, it may seem very plain to any one that he could have done it as well. This is often the case with inventions of the greatest merit. It may be laid down as a general rule, though perhaps not an invariable one, that if a new combination and arrangement of known elements produce a new and beneficial result, never attained before, it is evidence of invention. It was certainly a new and useful result to make a loom produce fifty yards a day when it never before had produced more

* Quoted by this Court in *Bianchi v. Barili*, 168 F. (2d) 793, 799 (1948).

than forty; and we think that the combination of elements by which this was effected, even if those elements were separately known before, was invention sufficient to form the basis of a patent."

In the present case any test of simplicity is made doubly illogical by the fact that couplings perform a vital function in aircraft. The witnesses, including top-grade engineers from nearly every leading aircraft manufacturer, testified unanimously that failure of a fitting can, and has, resulted in fatal accidents. It is truly a matter of life or death to pilots and passengers. Use of the Parker couplings has spelled out safety—something that is never simple or trivial.

Every dictate of reason and law indicates that the Parker fitting, which has displaced all others in this most vital application, is inventive and that its superficial simplicity does not detract from this fact.

The District Court Misconstrued the Issue of Validity in Holding That Validity "Depends Upon the Sleeve."

The error of the District Court is directly traceable to the erroneous assumption that the novelty of the Parker patent depends on the sleeve (R. 65). Equal error was made in inconsistently asserting that the patent covered a "flare" (R. 76).

We claim no patent on a sleeve. We claim no patent on a tubing flare. Our only claim is to that which Parker admittedly contributed to the art—namely, a coupling embodying the sleeve head angle, the differential angle, or the combination of the two.

Of course, there is no invention if we measure invention by something Parker did not contribute and did not claim he contributed. The conclusion is equally irresistible that there is invention if the test is the sleeve head angle and

the differential angle which Parker did contribute and did claim.

Conclusion On Invention.

The Parker patent coupling embodies two wholly new features—the sleeve head angle and the differential angle. They made possible a coupling capable of meeting all of the exacting requirements of the aircraft industry, including resistance to shock and vibration, ability to effect a tight seal under adverse conditions, operability under a wide range of tightening, and many others.

The aircraft industry long sought the Parker invention. Efforts were made to obtain a structure having its characteristics—all to no avail. When the Parker coupling was introduced it replaced the existing couplings. It remains as standard to this day.

There is no real dispute as to these facts. Yet they are decisive of the issue of invention. Only by ignoring them could the District Court deny Parker the status of inventor. The findings, wholly inconsistent with these facts and without rational basis, are clearly erroneous.

The industry, the Army and the Navy aircraft experts, and the Patent Examiner are right—Parker made a patentable invention.

ARGUMENT ON CLAIM LANGUAGE.

The major portion of the opinion by the District Court is devoted to the technical issue of the claim language used by Parker's solicitor. This portion of the opinion, and the resultant findings, are erroneous because the District Court misconstrued the language of the controlling statute and failed to consider the nature of the Parker invention in applying the cases.

This question of claim language is solely a question of compliance with the applicable statutes. No disputed questions of fact are involved other than those facts gratuitously injected, without support on the record, by the District Court. It is paradoxical that this portion of the opinion, which was most heavily emphasized by the District Court, should be based on wholly erroneous and unsupported assumptions of fact.

Section 4888 R. S. Requires Only That a Patentee "Distinctly" Claim the Invention—Not That Each Claim Must be a Textbook on the Invention.

The statutory requirements governing patent specifications and claims are embodied in Section 4888 R. S. Stripped of language not here important, this statute reads:

"* * * (Before an inventor shall receive a patent he) * * * shall file in the Patent Office

(1) a written description of the same, and of the manner and process of making, constructing, compounding, and using it,

in such full, clear, concise, and exact terms as to enable any person skilled in the art * * * to make, * * * and use the same;

(2) and he shall particularly point out and distinctly claim the part, improvement, or combination which he claims as his invention or discovery. * * *"

(R. S. Section 4888, 35 U. S. C. 33.)

This two-part statutory command is perfectly clear. There must be:

1. A specification enabling those skilled in the art to make the invention; and,

2. Claims "distinctly" pointing out the invention.

Nothing more is expressed in the Statute. No more can be here required.

The District Court misread the statute and imported to

the second statutory requirement the demands of the first. In particular, after quoting the statute, the District Court stated:

“If the inventor fails to include in his patent *claim* such a description, then the patent must be found to be invalid.” (R. 68.)

Under this test neither the Parker patent nor any other patent is valid. Claims drafted to meet the clear language of the statute, the requirements of the Patent Office, and the Court decisions, are necessarily invalid when the statute is misread as was done in the present case.

In fact, it is an established Patent Office rule that “prolix” claims are not allowable. See the Manual of Patent Examining Procedure, page 56.* The Courts have also held that the statute is not met by claims including too much as distinguished from too little of the invention. *Lincoln Engineering v. Stewart Warner*, 303 U. S. 545 (1938).

As we point out in the following sections, the Parker specification and claims fully meet the statutory requirements. The patent is accordingly valid.

There Is No Record Evidence That the Parker Specification Is Incomplete. Nothing Overcomes the Examiner's Finding That the Specification Adequately Describes the Parker Coupling.

The District Court found that the Parker specification:

“* * * does not describe either the sleeve head angle or the differential angle” (Finding 7, R. 80).

This finding is clearly erroneous because the Record is wholly devoid of any supporting evidence.

The District Court opinion includes equally erroneous statements that in the

“* * * patent application, in describing the sleeve,

* Department of Commerce, U. S. Patent Office.

the plaintiff did not attempt to depict the angle of the 'sleeve head angle' or the angle of the 'differential angle' " (R. 66),

and that

"* * * plaintiff did not in the patent application attempt to actually describe the flare 'so shaped' but after the use of the words 'so shaped' merely described what it would do. * * *" (R. 67.)

Again, the District Court, dwelling on its own confused analysis, asserted in justification of the decision that:

"* * * There is nothing in the patent application or in the claims to indicate just how the sleeve was to be so shaped. * * *" (R. 69.)

Yet the Court inconsistently admitted that the "drawings in themselves give the general shape and contour of the sleeve" (R. 69).

Judge Westover was correct in noting that the drawings give the "general shape and contour of the sleeve." He failed to note, however, that the specification very carefully—and in considerable detail—refers to the drawings. The specification particularly explains, with respect to the general shape shown in the drawings, the specific features of patentability. For example, the sleeve head angle or taper on the sleeve is indicated at Figures 2 and 3 of the drawing (R. 1323) by the line d, and explained in the specification by reference to the line d (col. 2, lines 49-52, R. 1325). Similarly, the sleeve head angle is described in the specification (col. 2, lines 6-48, R. 1325) with specific reference to the lines b and c of the drawing (R. 1323).

The error of the findings on the specification is also shown by their complete lack of support in the record. Thirteen witnesses testified at the trial and by deposition, most of them expert aircraft engineers. Not one witness testified that he would have the slightest difficulty constructing a Parker coupling from the patent specification.

Moreover, the Patent Examiner allowed the Parker patent and in so doing found that the specification adequately and fully disclosed the invention as required by statute. If the presumption of patent validity has any meaning at all, it means that the Parker specification is adequate. Certainly a total absence of proofs cannot sustain a burden that is a "heavy one" and must overcome "every reasonable doubt" (*Mumm v. Jacob E. Decker & Sons*, 301 U. S. 168, 171 (1937)). As stated by Judge Learned Hand:

"* * * all patents are presumed to be operative when they pass the examiners, and there must be substantial proof that they are not, if they are to be disregarded. * * *" (*Western States Mach. Co. v. Hepworth*, 147 F. (2d) 345, 348 (1945).)

It should not be overlooked that the patent statutes require only that the specification describe "the best mode in which he (the inventor) has contemplated applying that principle" of the invention "so as to distinguish it from other inventions." (Section 4888 R. S., 35 U. S. C. 33.) Parker fully met this test. It is the only test that is applicable.

Each Claim of the Parker Patent "Particularly Points Out and Distinctly Claims" the Parker Invention. The Statute Requires Nothing More.

The District Court seized upon the words "so-shaped" in the Parker claims to hold them technically invalid (R. 67-74). The Court further held that the claims were "lacking in essential structural description" (Finding 14, R. 85).

This analysis, and the resultant findings, applies a false test to the claims. It obscures the decisive fact—namely, that the claims do point out, with particularity, the Parker inventive features. These features are the sleeve head angle (Claim 2), the differential angle (Claim 1), and the combination of the angles (Claim 3). There is no sugges-

tion anywhere in the record of this case that the claims cover any more than these features which were wholly new with Parker.

The sleeve head angle permits the sleeve (red) to flex under the clamp nut pressure (green) without engaging the bore of the clamp nut (green). This action is achieved by the cooperation of the clamp nut and the sleeve and not by the construction of either part alone.

Parker Claim 2, for example, very specifically points out that the "clamping shoulder" on the sleeve head be "spaced a distance back of the inner flare surface" and that the "outer surface of said head (of the sleeve, red) and the said inner wall of the coupling member (clamp nut, green) being so shaped relative to each other that when the sleeve head expands during the clamping action they will contact only in the region of the clamping shoulder" (R. 1326, col. 2, line 36).

There is nothing indefinite or misleading about this language. It points out, in technical terms but nevertheless clearly, that the shapes of the sleeve and the clamp nut coact to provide an increased radial clearance between the sleeve head and clamp nut as the toe of the sleeve is approached. This is precisely the sleeve head angle structure as will be evident from an examination of Chart 2 (page 9, this brief). Certainly this language "particularly points out" the invention in full compliance with the Statute since the invention (sleeve head angle) inheres in this arrangement of the parts.

The differential angle is likewise fully defined in Claim 1. The claim recites:

"* * * said head (the sleeve head) having the inner surface thereof provided with a coniform flare so shaped that the initial contact of the head with the flared end of the tube is at the free end of the head and adjacent the outer end of the flared end of the tube,

whereby during the clamping action said head will be expanded and moved forward along the flared end of the tube into intimate contact with the outer surface thereof throughout substantially the entire extent of the flared surface on the sleeve head.” (R. 1326, col. 2, line 13.)

The Parker differential angle invention resides in arranging the sleeve (red) to engage the tip of the tubing flare (blue) to extrude the flare outwardly in mushroom fashion as the coupling is drawn tight. This is achieved by coaction of the sleeve with the other parts of the coupling. If the degree of bevel of the body member (yellow) is altered to accept a tubing flare having a corresponding degree of taper, the sleeve head (red) must have a new conformation to achieve the initial toe contact. It is not the taper of the interior of the sleeve, nor the taper of the tube flare that provides the differential angle—it is the difference between these tapers. The claim logically and very clearly recites this feature in terms of the coaction of these parts which give rise to this essential characteristic.

The acid test of this claim language is the evidence in this case. The Patent Examiner found that the claims were proper and issued the patent only because they fully met the statutory requirements. Any finding that the claims were improper must rest on evidence overcoming the finding of the Examiner. The present record is devoid of such evidence. Not a single witness testified that the Parker invention resides in something other than or different from the recitations of the claims. Like the findings on the specification, the District Court found the claims inadequate only by gratuitously assuming facts that are wholly absent in the record.

The Courts Have Uniformly Held That Claims Need Only Point Out the Invention—Not Redescribe It.

The standards applied to the Parker claims by the District Court are not only based upon a misreading of an unambiguous statute and upon evidence not in the record, but, in addition, these standards are irreconcilable with the judicial decisions. The authorities are unanimous that the claims are required only to point out the invention, not to redescribe it. The Supreme Court has stated:

“* * * it is not necessary to embrace in the claims or describe in the specifications all possible forms in which the claimed principle may be reduced to practice. It is enough that the principle claimed is exemplified by a written description of it and of the manner of using it ‘in such full clear, concise, and exact terms’ as will enable one ‘skilled in the art to make, construct, compound and use the same’.” (*Smith v. Snow*, 294 U. S. 1, 11 (1935).)

Moreover, in *Western States v. Hepworth*, 147 F. (2d) 345, 349 (C. A. 2, 1945), Judge Learned Hand observed:

“* * * All claims are to some extent more general than the specifications * * *.”

It is also settled law that the specification and drawings are to be construed together. As stated at 69 C. J. S. 701:

“The specifications and the claims of a patent constitute a contract between the United States and the patentee, and they should be read and construed together in order to determine the real meaning of the claims and for the purpose of ascertaining from the entire agreement the actual intention of the parties
* * *.”

Also, in *Payne Furnace & Supply Co., Inc. v. Williams-Wallace Co.*, 117 F. (2d) 823, 828 (1941), this Court stated:

“* * * The argument would require us to close our eyes entirely to the drawings and specifications of the patent. These have an explanatory or interpretative office not to be ignored. The patent discloses the

inventor's conception of a composite pipe adopted—and manifestly intended—to be put together section on section to form a complete flue pipe. The drawings and specifications elucidate the claims in this respect so that no fair doubt remains concerning the nature and object of the combination invented.”

There is nothing difficult or ambiguous about the claim language. However, if there is some question, it can be fully answered by reference to the specification and drawing, which, even to the uninitiated, give a full and complete description of the Parker contributions to the art.

The Patent Examiner was right when he found that the Parker claims comply with the statute and decided cases.

The opinion of the District Court emphasizes the principle that a patent “illustration cannot enlarge the claims” (R. 69). This generality is sound law, but is wholly inapplicable here. We only seek to enforce the Parker claims as they are written and, if necessary, to refer to the specification and drawings to explain the claim terminology and **limit**, not enlarge, the scope of the claims. This has been universally approved by the courts. *Charles Peckat Mfg. Co. v. Jacobs*, 178 F. (2d) 794, 798-9 (C. A. 7, 1949).

The District Court raised a non-existent issue in declaring that “No one, taking the patent **and not using the illustrations**, could make the sleeve in question ‘so shaped’ that it would produce the results claimed for it, without independent experimentation” (R. 70). Of course not. The illustrations of the patent are there for the very purpose of showing the nature of the invention. The illustrations of a patent can no more be disregarded in determining the nature of an invention than metes and bounds can be ignored in determining the effect of a deed. It is classic patent law that the illustrations are part of the written specification and are to be considered with the

specification in determining the nature of the invention. *Shull Perforating Co. Inc. v. Cavins*, 94 F. (2d) 357, 364 (C. A. 9, 1938); *Payne Furnace & Supply Co. v. Williams-Wallace Co.*, 117 F. (2d) 823, 825 (C. A. 9, 1941).

The error is compounded by the fact that this non-existent issue is decided upon non-existent evidence, gratuitously injected by the Court, that experiments are required to make a coupling utilizing the Parker invention. There is not and cannot be any such testimony for the patent embodies a full disclosure.

The Parker claims point out the invention. The specification fully discloses the invention. Nothing more is or can be required.

Without Exception, the Decided Cases Hold That Claims Like Parker's Are Proper.

The Parker patent specification fully describes and illustrates the Parker fitting and the operation of the sleeve head angle and the differential angle. It is perfectly evident from the patent itself that these two features are obtained by relatively proportioning the clamp nut, sleeve, and other parts to achieve the necessary bearing and clearance areas. As the claims express it, the parts must be "so-shaped" as to effect these characteristics.

The courts have uniformly upheld this type of patent as meeting the requirements of the statutes. The Patent Office, following the plain statutory language and these uniform cases, has systematically granted such patents. In fact, the Examiner of the Parker application was most careful in this respect and, after finding that the original claims did not meet the statute, he reconsidered and allowed the claims now in the patent (R. 1441, 1457). This is not a case where the Examiner overlooked a crucial matter of inquiry. Nothing "slipped by".

An illustrative case involving a situation of the present kind is found in *Schreyer v. Chicago Motocoil Corp.*, 118 F. (2d) 852 (C. A. 7, 1941). There the invention lay in positioning a layer of metal wool in a steam duct to prevent water surges. The specification showed one arrangement for doing this and explained the mode of operation, but did not give dimensions or other design details required for application of the invention to a specific problem. In particular, no specific thickness values were given for the wool layer nor were all the possible positions of the layer described.

The patent claims recited, like the Parker claims, "a layer of metal wool of sufficient thickness and so positioned" as to prevent surging of water into a steam duct during normal use. The court held this to be in full compliance with the statute, stating:

"* * * To be sure, the exact thickness of the layer is not designated, but it is to be of such thickness as to prevent surging of the water into the steam duct during normal use. To a lay mind this would mean that the thickness of the layer should be determined by trial and error and we think one skilled in the art would so consider it, and have no difficulty in producing the disclosure."

The classic case of *Continental Paper Bag Co. v. Eastern Paper Bag Co.*, 210 U. S. 405, 419 (1909), upheld the validity of claims using exceedingly broad expressions such as "means for operating said fingers at definite times," and other recitations of function. This case, erroneously quoted by the District Court for a non-existent statement (R. 70), supports Plaintiff's position that the Parker claims are well within the requirements of the statute. The decision below cannot be reconciled with the *Paper Bag* case.

This Court in *Cutter Laboratories v. Lyophile-Cryochem*

Corp., 179 F. (2d) 80, 87 (1949) squarely held that the words "substantially instantaneous freezing" met the requirement of the patent statutes as to claim language. Of course, this phrase did not tell how fast the freezing must be in terms of minutes or seconds any more than the words "so-shaped" defined the precise values of the sleeve head and differential angles in terms of degrees of arc. In each case, however, the claim, when construed in the light of the specification, fully describes what is patented—all that is required.

The *Cutter* case is nowhere cited or mentioned in the opinion of the District Court in the present case.

The Incandescent Lamp Case, Erroneously and Gratuitously Relied Upon Below, Is Wholly Irrelevant to Any Issue of This Case.

The District Court relied more heavily on the *Incandescent Lamp* case, 159 U. S. 465 (1895) than on any other decision. Yet this case was not cited by Defendants and nowhere represented by them as even relevant to the issues here. The *Lamp* case is not only irrelevant here, but its place in the opinion below reveals the illogical consequences of the initial misconstruction of patent statutes indulged in by the District Court.

The *Lamp* case was the consequence of an effort, by filing a broad and wholly impractical patent disclosure, to monopolize all future developments in incandescent lamps. The claims of the Sawyer and Mann Patent there in suit called for a lamp filament "of carbonized fibrous or textile material," thus encompassing the entire gamut of carbonized (burnt) filaments. The patentees had actually tried only a very few materials and those that had been tried were commercially impractical.

Long after the Incandescent Lamp patent, Thomas Edi-

son undertook to develop what Sawyer and Mann sought and failed to achieve—a practical incandescent lamp. He was forced to try some 6000 filament materials from all over the world, most of them being within the scope of the very broad claim language of the Sawyer and Mann Patent. Yet only a very few of these materials were operable and still fewer were practical. None of the materials described in the Sawyer and Mann patent were new materials Edison found to be practical or materials used in the accused lamps.

The Supreme Court properly held that the Sawyer and Mann Patent could not be construed to cover what Edison contributed rather than the contribution of Sawyer and Mann. Since the claims of the patent were so broad and indefinite that they covered, not what the inventors did, but what Edison did, the Court properly found that the claims did not meet the statutory requirement of “particularly pointing out the invention”.

This Court properly distinguished the *Incandescent Lamp* case in *Snow v. Kellar-Thomason Co.*, 241 Fed. 119, 120 (1917) where, as here, the claims covered the invention made by the patentee and no other.

The *Lamp* case is wholly inapplicable here. The present record is devoid of the proofs that were crucial in the *Lamp* case. There is no testimony whatsoever in the present record that structures conforming to the Parker claims do not embody Parker’s contribution. There is no showing of any kind that the Defendants obtained the coupling designs independently. In fact, Masters himself testified that he “filched” the Parker drawings, and that Parker “was the father” of the couplings here accused (R. 639), an admission that alone makes the *Lamp* case inapplicable.

The Parts of the Parker Patent Structure Coact in a New Manner to Form a New Combination Not Shown in the Prior Art. *Halliburton v. Walker* Is Inapplicable.

The point of novelty of the Parker patent structure here in suit lies in the use of a sleeve which, in cooperation with the other coupling elements, gives rise to the sleeve head angle and the differential angle. These are nowhere to be found in the prior art. The Patent Examiner found them new and patentable.

The Parker invention resides in a new arrangement and design of the elements of the coupling—not in adding a specific new element to the prior art coupling. Parker's invention resides in a new coaction of the parts and a new patentable combination of elements.

The District Court wholly overlooked this crucial fact when it classified this case with *Halliburton v. Walker*, 329 U. S. 1 (1946). There the Supreme Court held patent claims fatally defective because the novelty lay in adding a specific known element to an old combination of elements used to measure the depth of an oil well. That additional old element, appended to the prior art system, was not recited by its structure, but merely as a "means" to perform the additional function, a recitation that necessarily and inherently covered far more than Walker ever contributed to the art since he contributed neither the combination nor the element.

In the present case Parker contributed a new combination. Every element of that combination—the body, the clamp nut, and the sleeve—is found in some form in the prior art. There is no question here with respect to reciting an additional element because no additional element is present.

The Parker patent does not have the defect of the

Walker patent—it cannot do so because the essential ingredient of an additional element is wholly absent.

As if to answer the *Halliburton* contention in advance, the Supreme Court in *Faulkner v. Gibbs*, 338 U. S. 267 (1949), affirming this Court, held that the *Halliburton* decision does not apply where the invention lies “in the fact of the combination” and not “in the novelty of any particular element.”

Faulkner v. Gibbs was wholly ignored in the opinion below. Yet it wholly disposes of the *Halliburton* case.

The District Court also completely ignored this Court’s decision in *Cutter Laboratories v. Lyophile-Cryochem Corp.*, 179 F. (2d) 80, 91 (1949), where claims were held valid even though they were in terms of result. In that case, as here, the invention lay in a new combination rather than an added element appended to an old combination.

The Claim in *General Electric v. Wabash* Was Merely to a Result. The Parker Patent Claims Structure. General Electric Does Not Apply.

The District Court relied on *General Electric v. Wabash*, 304 U. S. 364 (1938), to support its holding that the Parker claims are indefinite. Yet the *General Electric* case is wholly unlike the present case.

In *General Electric v. Wabash*, the patentee had discovered, after some 218 experiments, that if an alkaline silicate is brought into intimate association with the tungsten filament of an electric lamp, undesirable grain growth is prevented. But the patent claims did not cover this invention—they sought to encompass *all* methods of preventing grain growth in filaments. This was done by claiming a filament:

“* * * made up mainly of a number of comparatively large grains of such size and contour as to prevent substantial sagging or offsetting * * *.”

The Parker invention lies in utilizing the sleeve head angle and the differential angle in a coupling otherwise similar to the prior art. These are completely recited in the claims by structure and not in terms of mere result. For example, Claim 1, covering the differential angle, states:

“* * * said head having the inner surface thereof provided with a coniform flare so shaped that the initial contact of the head with the flared end of the tube is at the free end of the head and adjacent the outer end of the flared end of the tube * * *.” (R. 1326, col. 2, lines 12-17.)

This is a clear and precise recitation, not only of the presence of the coniform flare, but of its conformation. There must be a flare in the sleeve and that flare must first engage the tube at its outer extremity. Even an unskilled mechanic requires nothing more to construct the invention, especially after examining Figure 2 of the patent (R. 1323). Any structure within the scope of this language necessarily embodies Parker's contribution and nothing more.

The decisive fact of the *General Electric* case is that there a patent claim sought to cover more than the inventor contributed. That fact is absent here. *General Electric* cannot apply.

Conclusion On Claim Language.

The District Court committed basic error in misconstruing the plain language of the patent statutes to import into the claims the same requirements of description as are prescribed for a specification. This error permeates the entire decision and resulted in wholly unjustified reliance on cases such as the *Incandescent Lamp* case.

The Parker specification adequately tells those in the art how to construct couplings embodying the invention. The claims specify couplings embodying that invention and no other couplings.

By every test of the patent statutes, and by every test of the decided cases, the Parker specification and claims are proper.

There is no testimony to overcome the Examiner's finding that the Parker specification and claims are adequate.

ARGUMENT ON INFRINGEMENT.

The issue of infringement was not passed upon below (R. 87). However, since the record evidence forms a complete basis to pass on this issue, this Court can now find infringement and avoid further proceedings with respect to this question.

Each and Every Element of the Parker Claims Finds Response in the Accused Structures.

The witness Wolfram gave the basic testimony on infringement in this case. He read the Parker claims on each type of accused coupling, using the charts, Plaintiff's Exhibits 53, 58 and 59 (R. 1385, 1390, 1391) for reference (R. 301-362).

The claim charts are reproduced opposite the back cover of this brief, with coloring added to show the correspondence of the coupling parts to those previously discussed in this brief. With respect to the fittings of size 8 and larger, the sleeve head angle is present but not the differential angle. These fittings are charged only as infringements of Parker Claim 2 as shown in chart 6.*

The size 2 to size 6 fittings embody both the sleeve head angle and the differential angle. These fittings respond to all the Parker claims, as shown by chart 7, opposite the back cover of this brief.**

* Since the Collins and Masters fittings are identical, we reproduce here only the Masters chart (Plaintiff's Exhibit 58, R. 1390).

** Plaintiff's Exhibit 53, R. 1385.

We assume that Defendants do not seriously question the fact that they make and sell complete 3-piece tube couplings. There can be no such question in view of their repeated counterclaim allegations that:

“* * * Defendant is the manufacturer of a **tube coupling** for use on flared tubing consisting of a body, a nut, and a sleeve * * *” (R. 47) (see also paragraphs 32 and 33 of the counterclaims, R. 50-51).

Any possible doubt that the accused couplings embody the Parker invention is resolved by the testimony of Masters who stated that he did no development whatsoever in connection with the fitting (R. 667); that Parker was the “father” of the fitting (R. 638-9); and that he “filched” the Parker drawings (R. 639). Having taken Parker’s drawings, there can be little doubt that Masters took the Parker fitting as well.

Every Parker claim recitation finds response in the accused couplings. There is infringement.

CONCLUSION.

The urgent need for millions of couplings during the war, due to insistence by the Armed Forces on the use of Parker couplings, prompted Parker, in a spirit of patriotism, to make its technology freely available to the industry. As a result, the Defendants obtained access to the Parker drawings and were able to enter the coupling business. Defendants recognize the significance of Parker’s contributions by admitting that their structures stem from Parker and not from the prior art or their own research. Yet they call upon this Court to ignore the importance of these contributions to relieve them of patent responsibility. This double standard is not available.

Parker contributed the sleeve head angle and differential angle to the art of tube couplings. Couplings utilizing these contributions have wholly displaced all previous

couplings in the aircraft industry, where considerations as to weight and size are critical and yet reliable performance at enormous pressures and under adverse conditions of maintenance and installation must be achieved.

These facts, ignored by the District Court and yet uncontradicted on the record, spell invention of high order. The holding of non-invention is clearly erroneous.

Moreover, Parker fully complied with Section 4888 R. S., both as to his specification and as to his claims. The decisions of the courts and the action of the Patent Examiner in the Parker application fully support the technical adequacy of the Parker patent. The decision below—that Parker did not comply with the statute—stands alone. It must, as it is based on a misconstruction of the statutory language that is irreconcilable with a plain reading of the words. The holding that Parker's specification and claims are technically insufficient is likewise reversible error.

The issue of infringement, not passed upon below, is completely resolved by application of the Parker claims to the accused structures—application that leads only to the conclusion that the accused structures constitute a complete response to the claims and hence an infringement.

The Parker patent is valid. It is infringed.

Respectfully submitted,

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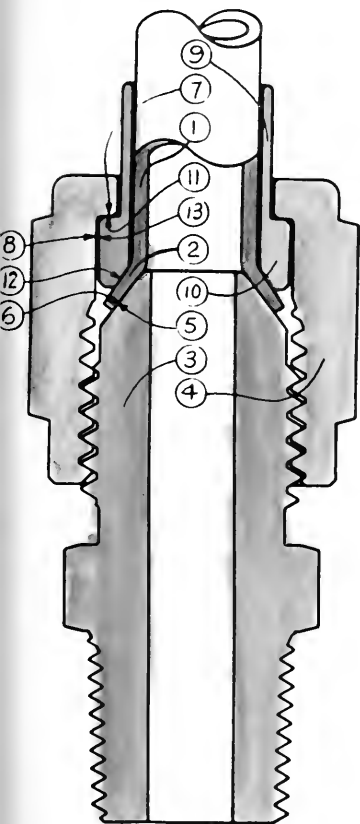
MASTERS FITTING

with single angle sleeve

Aug. 20, 1940.

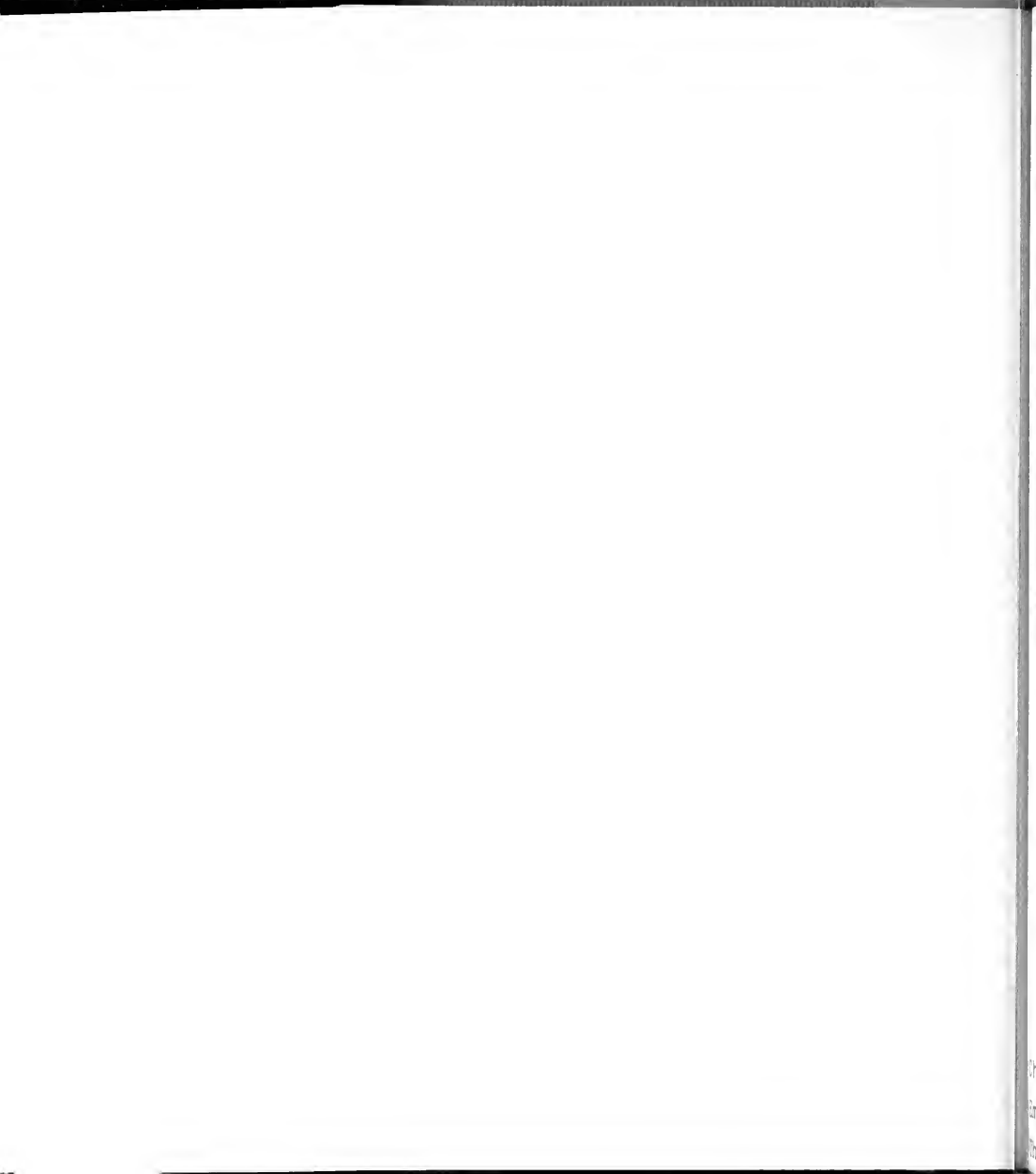
A L PARKER
TUBE COUPLING

2,212,183



CLAIM 2. In a coupling for (1) tube having the (2) ends thereof flared, (3) (4) coupling members having threaded engagement with each other, (3) one of said coupling members having a (5) seat associated therewith for engaging the (6) inner flare of the (2) flared end of the (1) tube and the (4) other coupling member having a (7) clamping shoulder and (8) an inner wall, (9) a sleeve surrounding said tube and having a (10) solid head capable of radial expansion during the clamping action, said (10) head being provided with a (11) clamping shoulder against which the (7) shoulder of the coupling member engages and an (12) inner flare surface for engaging the outer (2) flared end of the (1) tube, said (11) clamping shoulder being spaced a distance back of the (12) inner flare surface, the (13) outer surface of said (10) head and the said (8) inner wall of the (4) coupling member being so shaped relative to each other that when the sleeve (10) head expands during the clamping action they will contact only in the region of the (11) clamping shoulder, the remaining portion of the (10) head being free from contact with the (4) coupling member whereby the clamping force of the (10) head against the (1) tube is determined by the spring tension of the metal forming said (10) head.

Chart 6 -- The "Single Angle" Sleeve Couplings (Sizes 8 to 48)
Utilize the Sleeve Head Angle and Embody a Full Response To
Parker Claim 2.

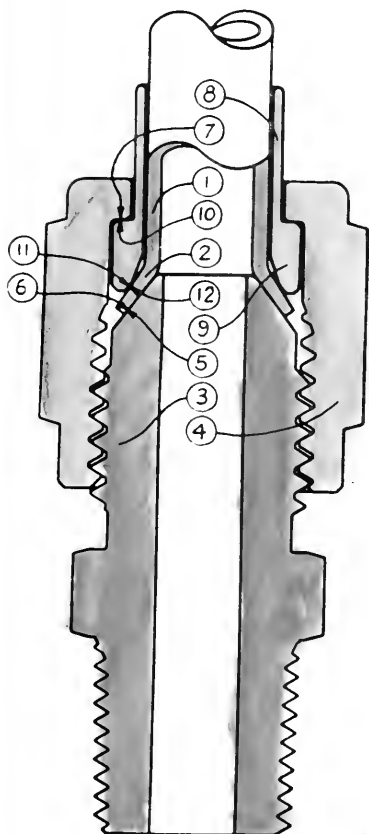


MASTERS FITTING with double angle sleeve

Aug. 20, 1940.

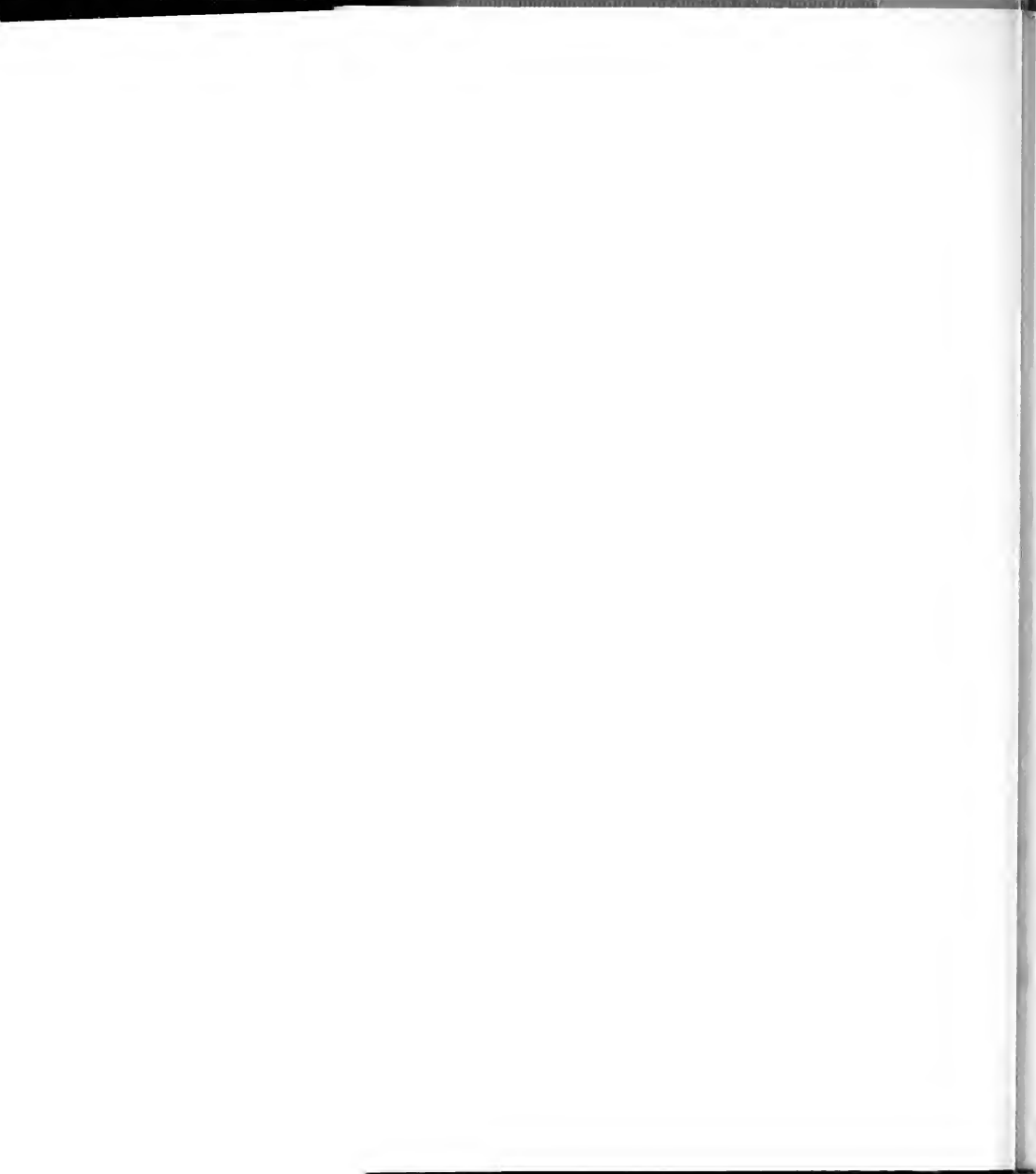
A L PARKER
TUBE COUPLING

2,212,183



CLAIM 1. In a coupling for (1) tubes having the (2) ends thereof flared, (3) (4) coupling members having threaded engagement with each other, (3) one of said coupling members having a (5) seat associated therewith adapted to engage the (6) inner face of the (2) flared end of the (1) tube and the (4) other coupling member having a (7) clamping shoulder, a (8) sleeve surrounding said (1) tube and having a (9) solid head provided with a (10) shoulder against which the (7) clamping shoulder of the (4) coupling member engages, said (9) head having the (11) inner surface thereof provided with a coniform flare so shaped that the initial contact of the (9) head with the (2) flared end of the (1) tube is at the free end of the (9) head and adjacent the outer end of the (2) flared end of the (1) tube, whereby during the clamping action said (9) head will be expanded and moved forward along the (2) flared end of the (1) tube into intimate contact with the (12) outer surface thereof throughout substantially the entire extent of the (11) flared surface on the sleeve (9) head.

Chart 7 -- The "Double Angle" Sleeve Couplings (Sizes 2 to 6)
Embody Both the Sleeve Head Angle and the Differential Angle.
They Fully Respond To Parker Claim 1 As Well As Claims 2 and 3.



No. 12,848

IN THE

United States Court of Appeals

FOR THE NINTH CIRCUIT

THE PARKER APPLIANCE COMPANY,

Plaintiff-Appellant,

vs.

IRVIN W. MASTERS, INC.,

Defendant-Appellee.

THE PARKER APPLIANCE COMPANY,

Plaintiff-Appellant,

vs.

JOSEPH C. COLLINS, doing busines under the firm name and style of
COLLINS ENGINEERING COMPANY, Hollywood, California,

Defendant-Appellee.

APPELLEES' BRIEF.

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APPELLEES' BRIEF.

Statement of the Case.

Many different types of fluid lines are used on aircraft and all require fittings or couplings for connections. Certain fluid lines are those constructed of metal tubing, namely, copper, aluminum and steel, and these require a special fitting adapted to that particular use. Prior to employment of the particular fitting here in issue, various other styles of fittings were used consisting in some instances, of two-piece fittings, and, in other instances, of three-piece fittings, both employing a flare on the tubing. Flareless couplings are also in use.

Before present standards were adopted, the Navy employed a set of fittings which were not interchangeable

with those used by the Army Air Corps. Some of the threads were non-standard. In the interest of uniformity, experience and data were correlated by agencies of the government in cooperation with manufacturers which resulted in the adoption of specifications for a standard fitting. It was planned that the fitting should be a three-piece fitting and that parts made by different manufacturers would be interchangeable. The fitting was to be a non-proprietary fitting so as to be available to all users from many sources [R. 563, 651]. The newly adopted fitting was designated the Army-Navy Standard Three-Piece Fitting or AN Standard. Other acceptable fittings include the AC811 three-piece fitting and the AN817 two-piece fitting.

All manufacturers must supply fittings conforming to AN Std. specifications where the fittings are used on government work. Commercial aircraft manufacturers as a matter of expediency have also turned to a large extent to the AN Std. fittings. Those are the fittings parts for which are sold by the Appellees here and also the fittings manufactured and sold by the Appellant. Appellant by this suit has sought to show that all AN Std. three-piece fittings are infringements of Parker Patent No. 2,212,183, which Appellee's deny.

Decision of the District Court.

The trial court was aware of Appellant's contention that invention lay in the difference in angle between the outer wall of the sleeve head and the inner wall of the nut, termed the "sleeve head angle" and in the difference in angle initially between the inner angular surface of the sleeve head and the outer angular surface of either

the tube flare or the body, identified throughout the testimony here as the “differential angle.” Nevertheless the Court in its opinion said:

“We are of the opinion that the change in the angles between the outer wall of the sleeve and the inner wall of the nut and the outer surface of the sleeve head, and the outer angular surface of the tube flare, does not justify a monopoly.” [R. 77.]

The trial court also held Parker Patent No. 2,212,183 invalid for uncertainty and failure to meet the requirements of Revised Statutes, Section 4888, 35 U. S. C. 33 [R. 67]. The Court went into considerable detail to give its reasons why the expression “so shaped” as used in the claims, in the light of the prior art and the evidence, was insufficient to satisfy the statutory requirement [R. 67-73].

All claims being adjudged invalid, the Court deemed it unnecessary to express any conclusion as to whether, if valid, all or any of the claims would be infringed [R. 87]. That issue not being before this Court, we reserve argument thereon, and references thereto in this brief are incidental.

Findings of the District Court.

The findings of the District Court upon which the decision is based holding the patent in suit invalid for want of invention or anticipation are those numbered VI, X, XII, XIII, XIV, XV, and XVI, found at R. 80 *et seq.*

Findings relating to the insufficiency of the Parker patent under R. S. 4888, 35 U. S. C. 33, are those numbered VII, VIII, XII, XIII, and part of XIV.

SUMMARY OF ARGUMENT.

I. All findings of fact on want of invention and anticipation are supported by the evidence, and the judgment should stand.

1. Finding VI that three-piece couplings of this type are very old in the art and the patent in suit is in a very crowded art is supported by the record.

2. All the structure recited in Claims 1, 2 and 3 is old in the art. The rest of each claim is a relationship which would have to be established by experiment.

3. Finding X to the fact that the prior art illustrates numerous three-piece fittings embodying the three essential elements found in the patent in suit, that the prior patents disclose various shapes and forms of sleeve heads and tube flares and angular relationships between the several parts is amply supported by the record.

4. Finding XII, that by reference to the Parker Patent No. 2, 212, 183, no one could achieve the results called for without experimentation, is fully supported by the evidence.

5. Finding XIII, that the patentee Parker's contribution to the art is narrow, if any, and claims are broader than the invention, is fully supported in the record.

6. Finding XIV, that the claims of Parker Patent No. 2,212,183, are not susceptible of any interpretation which would preserve their validity, is fully supported in the record.

7. Finding XV, to the fact that the differences, if any, disclosed in the patent in suit over the prior art do not involve invention, is supported by substantial evidence.

8. Finding XVI, that employment of any change in the sleeve head angle and differential angle involves no more than mechanical skill and cannot justify a patent, is supported by substantial evidence.

9. Minor changes and perfection of workmanship even if present do not constitute invention.

10. Appellees' Supplement Argument.

II. The Parker Patent No. 2,212,183, as to all three claims is invalid for uncertainty and failure to meet the requirements of revised Statutes, Section 4888, 35 U. S. C. 33.

1. Sampling of evidence on deficiency of description clearly supports this defense.

2. Sampling of evidence on deficiency of the Parker claims clearly supports this defense.

3. Appellant's Opening Brief on this point is lacking in accuracy and its authorities do not support its argument.

III. The Parker Patent No. 2,212,183 as to all three claims is invalid because the original application was forfeited and the patent issued upon a renewed application containing additional subject matter.

ARGUMENT.

I.

All Findings of Fact on Want of Invention and Anticipation Are Supported by the Evidence and the Judgment Should Stand.

THE FEDERAL RULE.

“Findings of fact shall not be set aside unless clearly erroneous, and due regard shall be given to the opportunity of the trial court to judge the credibility of the witnesses.”

Rule 52(a), Federal Rules of Civil Procedure; 28 U. S. C. A. 13.

THE LAW IN THE NINTH CIRCUIT.

This Court of Appeals in discussing evidence offered in connection with a paper shredding machine ruled as follows:

“These findings are amply supported by the evidence. Of the twenty-seven witnesses who testified, seventeen testified in open court and were seen and heard by the trial judge, who had also the advantage of seeing and examining the accused machine. His findings, therefore, unless clearly wrong, should not be disturbed.”

Antonsen v. Hedrick, 89 F. 2d 149, 151 (C. C. A. 9).

Even though the evidence was conflicting this Court has held that the findings should not be disturbed saying:

“These findings are supported by substantial evidence, are not clearly erroneous and should not be set aside.”

Ralph Brodie Co. v. Hydraulic Press Mfg. Co., 151 F. 2d 91, 94 (C. C. A. 9).

A case involving cementing equipment for oil wells prompted this Court to say:

“The trial court held that it required mere mechanical skill to substitute perforated ports in the casing for the 1926 method of perforating after lowering, as taught in a number of patents in evidence and by Manning’s No. 2,029,380 and Boynton’s No. 1,673,616. This was a finding of fact that cannot be disturbed on appeal except for manifest error.”

Crowell v. Baker Oil Tools, 153 F. 2d 972, 979 (C. C. A. 9).

Other decisions in this Circuit following chronologically consistently support the law as set forth so clearly:

Maulsby v. Conzevoy, 161 F. 2d 165, 167 (C. C. A. 9).

Refrigeration Engineering v. York Corporation, 168 F. 2d 896, 899 (C. C. A. 9).

In a decision by this Court involving amusement games the language is direct and to the point.

“We are of the view that the trial court committed no error in its factual findings and that its determination and application of the law was and is correct.

“The question of whether or not a new and useful combination is the result of mere mechanical skill, or of inventive faculty, is one of fact.

“What constitutes invention as distinguished from a mere aggregation, is a question of fact.

“Questions of invention and patent validity are questions of fact.

“Whether prior art patents or publications disclose or anticipate the subject matter of a patent in issue is determined as a question of fact.”

Faulkner v. Gibbs, 170 F. 2d 34, 37 (C. A. 9).

For a rather full discussion of the application of the rule that findings of fact in the trial court are not readily disturbed, see:

Pointer v. Six Wheel Corporation, 177 F. 2d 153, 159 (C. A. 9).

OTHER CIRCUITS ARE IN CONFORMITY.

“It is a familiar rule that findings made in an equity case are not conclusive, but they are presumptively correct and will not be disturbed on appeal if they are supported by substantial evidence and no serious mistake was made in the consideration of the evidence.”

Ruth v. Climax Molybdenum Co., 93 F. 2d 699, 702 (C. C. A. 10).

In a case involving carburetors expert testimony supported both plaintiff's and defendant's position but the Court in holding the findings to be questions of fact said:

“A finding of fact of a district court is not clearly erroneous unless it is (1) unsupported by substantial evidence, (2) contrary to the clear weight of the evidence, or (3) induced by an erroneous view of the law.”

“The credibility of expert witnesses and the weight of expert testimony is ordinarily for the trier of the facts to determine.”

Gasifier Mfg. Co. v. General Motors Corporation, 138 F. 2d 197, 199, 200 (C. C. A. 8).

The Sixth Circuit Court of Appeals in discussing findings predicated upon expert testimony relating to performance of electric motors said:

“And so, both from autoptic proference and from the expert testimony, it cannot be said that the

findings of the district judge as to the Coerper anticipation were clearly erroneous.”

O’Leary v. Liggett Drug Co., 150 F. 2d 656, 663 (C. C. A. 6).

“As it is well settled that the presence or absence of ‘novelty’ and ‘invention’ necessary to sustain the validity of patents is a question of fact and the construction of patent claims where extrinsic evidence is required to determine the meaning of technical terms also involves questions of fact . . .”

Hall Laboratories v. Economics Laboratory, 169 F. 2d 65, 66, 67 (C. C. A. 8).

1. **Finding VI, That Three-piece Couplings of This Type Are Very Old in the Art and the Patent in Suit Is in a very Crowded Art Is Supported by the Record.**

All the basic elements of a three-piece coupling were well-known at least forty-nine years ago. Figure 86 of the paper “Lead and Composition Pipes,” page 93, published in 1902, pictures a three-piece coupling for a flared tube showing a body, nut and sleeve [R. 733-4]. [Deft. Exs. D and SS.]

Appellant’s witness, Wolfram, admits that three-piece fittings are in the public domain [R. 732-733]. The same witness, Wolfram, selects parts of Claim 1 which are old, namely, coupling members having a threaded engagement, one member having a seat engaging the flare and the other having a clamping shoulder in a relation such that a sleeve surrounding a tube is clamped between them [R. 429-430]. This witness said that the invention lay in *so shaping* the sleeve that there was toe contact. Obviously therefore whatever Appellant claims

lies in nothing more than a rearrangement of the well-known three-piece fitting.

Parker was not the originator of the three-piece fitting, according to Appellant's Chief Engineer Davies [R. 1087].

The obvious crowded art is further demonstrated by various prior patents later referred to.

2. All the Structure Recited in Claims 1, 2 and 3 Is Old in the Art. The Rest of Each Claim Is a Relationship Which Would Have to Be Established by Experiment.

CLAIM 1.

Cross-examination of Appellant's expert, Wolfram, on the "sleeve head" angle:

"Q. If it is so simple, just tell the court briefly how you go about determining what the angle will be. A. Well, I think that the specific angle could probably best be determined by straightforward engineering analysis, or else *experiment*, either one.

Q. Would you be able to determine it? Do you have enough knowledge of the principles involved to figure that out? A. I think if I set about doing it I think that could be determined.

Q. You are a man skilled in the art; how would you determine what that angle should be? Tell the court the line that you would follow in determining what that angle should be. A. Well, as I mentioned, it could be determined by a stress analysis or by *experiment*.

Q. Is that your complete answer? A. I think so." (Emphasis ours.) [R. 440-441.]

CLAIM 2.

When Appellant's witness, Wolfram, discussed the alleged novelty of Claim 2, he again pointed out that the structure was old in the art [R. 443-444]. Then in stating what was new the witness asserted that it consisted of a clearance between the exterior of the sleeve head and the interior of the nut. The witness further pointed out that in the patent and to follow the patent teaching it is necessary to have *radial* contact at least at the large end of the sleeve head. In discussing the necessity for radial contact at the "region of the clamping shoulder" this witness, Wolfram, on further cross-examination was very explicit.

"Q. All right. So that in order to conform to this language, 'the region of the clamping shoulder,' there must be a contact between the nut and the head of the sleeve not only on the plane horizontal surface of those respective pieces, but also part way down the side on the circumferential surface, that is your testimony? A. No, I didn't say that it had to go part way down the side. It could be right at the corner.

Q. And terminate at the corner? A. Yes.

Q. So that if there is a clearance from the corner on down between the inner wall of the nut and the the outer wall of the sleeve, I want to repeat that, a clearance from the corner all the way down, that is within the meaning of this language in the claim? A. Yes, as long as at the corner there is some means for limiting the expansion.

Q. Limiting radial expansion? A. Yes.

Q. And do you consider that to be essential under the teaching of the patent and in particular this claim, do you? A. Yes, it is part of the claim.

Q. Well, then, would you say that a physical structure which had all these parts of the claim, except that there was a clearance between the outside of the sleeve head and the inside of the nut, all the way up to the corner, that such a device would not be within the scope of this claim 2? A. If it did not provide any means at the corner for limiting the expansion.

Q. For limiting radial expansion? A. Radial expansion.

Q. That is what you mean? A. Yes." [R. 444-445.]

This position of Appellant points the way to what should be considered as anticipating by the prior art. According to him, if the prior art shows a radial clearance or clearance laterally at the inside end of the sleeve head adjacent the shoulder, as well as throughout the remainder of the sleeve head, there would be no anticipation. Consequently, if the prior art shows such clearance and the structures charged to infringe likewise show such clearance, it follows that the structures are made in accordance with the prior art and not in accordance with Appellees' patent as defined in Claim 2.

CLAIM 3.

Appellant in pointing out the asserted distinguishing features of Claim 3 states that the sleeve head must be so formed that a differential angle is present, namely, so that there is toe contact only of the sleeve head with the outer end of the flare, and also that the sleeve head must provide an initial clearance between itself and the nut sufficient that there be no contact between the sleeve head and the nut when the fitting is tightened [R. 447]. Obviously therefore the two novel features jointly attri-

buted to Claim 3 have already been attributed separately to Claims 1 and 2.

Appellant's contribution, if any, can be nothing but a minor modification of the well-known three-piece coupling. Three-piece couplings have been known in the prior art and known to be in the public domain for many years as evidenced by the following prior art patents or publications produced in evidence:

Bjorling—Pipes and Tubes, 1902, Exhibit SS, shows a three-piece coupling with a solid sleeve head.

Parker Patents No. 1,893,442, Exhibit 25, and No. 1,977,240, show three-piece fittings with solid sleeve heads.

Patents to:

Guyer No. 196,084, Exhibit TT-4, issued in 1877.
McConnell No. 290,446, issued in 1883, Exhibit TT-5.

Jordan No. 654,735, issued in 1900, Exhibit TT-9.
Dossert No. 772,136, issued in 1904, Exhibit TT-10.

Benzion No. 1,680,080, issued in 1928, Exhibit TT-14, all show three-piece couplings with solid sleeve heads.

Parker No. 1,977,241, issued October 16, 1934, Exhibit TT-16, shows a three-piece coupling with toe contact.

It therefore follows that whatever Appellant's patent contains, it must be some minor dimensional detail around which only very narrow and explicit claims could be woven because broad claims could not be allowed in view of the foregoing prior art. No broad claim can possibly define a valid patent in view of that art.

3. Finding X to the Fact That the Prior Art Illustrates Numerous Three-piece Fittings Embodying the Three Essential Elements Found in the Patent in Suit, That the Prior Patents Disclose Various Shapes and Forms of Sleeve Heads and Tube Flares and Angular Relationships Between the Several Parts Is Amply Supported by the Record.

(a) SLEEVE HEAD ANGLE.

The sleeve head angle provides a clearance to permit the sleeve head to expand in the nut. If this be Appellant's novel achievement, it is abundantly met by prior art structures. The Parker Appliance Company in 1935, three years prior to application for the patent in suit, commercially employed a clearance condition which exceeded certain clearance conditions in present-day AN Std. fittings. What the clearance condition is in the patent cannot be definitely ascertained. Appellant claims, and Appellees deny, that the AN Std. fittings typify the patent in suit.

The Court's attention is directed to Defendants' Exhibit II [R. 1471] which shows the assembly of an AN Std. #6 Size fitting to minimum allowable clearance condition. The sleeve head of the AN Std. #6 fitting has a permissible one-half degree sleeve head angle. The clearance between the large end or shoulder end of the sleeve head and the nut is at minimum condition .003 inches on each side. The one-half degree sleeve head angle produces a clearance of .00432 inches at the small end or toe end of the sleeve. These are the dimensions and clearances of virtually millions of commercial fittings.

Exhibit JJ [R. 1472] is an assembly of the Parker three-piece fitting as it was constructed in 1935. The dimensions are taken from production drawings in the files of the Parker Appliance Company. The drawings are in evidence as Exhibit MM, Drawing No. 2-1835-1,

issued February 18, 1935; and Exhibit N. Drawing No. 2-1835-2, issued February 18, 1935. They depict the standard triple coupling of the Parker Appliance Company, Cleveland, Ohio. No sleeve head angle was then employed.

When the maximum allowable clearance conditions are used there is a clearance of .0045 inches throughout the entire length of the sleeve head. This is a clearance exceeding not only the clearance at the large end of the sleeve head as shown in Exhibit II, but also exceeding the clearance at the small end of the sleeve head resulting from the presence of the sleeve head angle [R. 621-622]. Obviously there is nothing new achieved by use of a sleeve head angle. It merely means leaving enough space so that the sleeve head can expand when the fitting is drawn tight.

Although the foregoing proof alone is sufficient to anticipate all claims for novelty in the sleeve head angle, attention is directed to other examples of three-piece fittings of which the prior art is replete as showing a three-piece fitting wherein the sleeve is adapted to expand in the nut.

SHEET NO. 1.

For the Court's convenience there is appended to this brief Sheet No. 1, comprising a set of diagrams, Nos. A through G, which illustrate the progress of the art in providing clearance around the sleeve head in a three-piece fitting. The diagrams show how clearances were changed as years of experience accumulated.

Diagram A shows the clearance as employed in 1933 by Parker Patent No. 1,893,442, Plaintiff's Exhibit 25. The clearance there proposed was a slip fit.

Diagram B shows the clearance proposed in 1934 by Parker Patent No. 1,977,240, Plaintiff's Exhibit 26. The clearance in that instance is materially greater.

Diagram C illustrates a well-defined clearance advocated by Parker drawings dated in 1935. This is the clearance referred to in Exhibit JJ.

Diagram D shows the clearance arrangement suggested by Patent No. 2,212,183 in suit. That is a clearance at the point *c* but no clearance at the point *a*.

Diagrams E, F and G show current constructions in accordance with AN Std. drawings wherein there is always a clearance at point *a* both prior to and subsequent to assembly as well as there being an initial clearance at the point *c*.

From these conditions graphically depicted by diagram it is immediately apparent that the prior art and present practice are the same with regard to providing a clearance for sleeve head expansion. Only the patent suggests closing the clearance at point *a*, a condition which in practical effect is worth nothing. If the clearance remains after the fitting is made, it makes no difference how little or great it may be.

Prior to the issue of Parker's earlier Patent No. 1,893,442 in 1933, Plaintiff's Exhibit 25, three-piece fittings were in existence in which a clearance was present between the sleeve head and the nut. Parker departed from this prior art condition in his earlier patent but later apparently found the clearance condition necessary because he returned to it in his subsequent patents and subsequent practice in 1935 [R. 679-680].

These prior patents and publications show a sleeve head clearance:

The Bjorling publication, Exhibits D and SS.

Guyer No. 196,084, Exhibit TT-4.

Benzion No. 1,680,880, Exhibit TT-14.

Huett No. 1,820,020, Exhibit TT-14.

Parker in his own patent No. 1,977,241, issued in 1934.

Whether it be an angle or an annular clearance, the effect is the same [R. 738].

The AC811 fitting was adopted by the Army Air Corps in 1935 [R. 185] and that had a sleeve head clearance. Employment of specific clearances were the conclusions of years of experience [R. 581]. Appellant's witness, Amon, recognized the sleeve head angle as an angle providing somewhat more clearance at the small end than the large end [R. 1001-1002]. He did not consider the sleeve head angle to give a zero clearance at the large end which was the position of Appellant as stated by its witness, Wolfram.

(b) DIFFERENTIAL ANGLE.

Appellant appears to take the position that the differential angle is an angular difference between the inside of the sleeve head and the exterior of the flare sufficient to produce a toe contact near the outside or large end of the flare and leave a clear space from the toe to the base of the flare in the sleeve.

Because there is no such toe contact in the AN Std. fitting herein charged to infringe, it would appear that Appellant may seek to infer, and such is supported by their offer of evidence, that differential angle is an angular difference between the inside angle of the flare and *the angle on the body*. There is in fact such an angular difference, namely, four degrees between the 37° body angle of the AN Std. fitting and the inside sleeve angle of 33° as depicted in Exhibit O. If the last defined position of what constitutes a differential angle is not Appellant's

contention, then again it is evidence that this suit is nothing more than vexatious litigation without foundation.

Whichever position is Appellant's true position, or even if Appellant should be so bold as to adopt both positions, nevertheless the differential angle by either conception is anticipated by the prior art. Differential angle and toe contact appear to be used synonymously. The toe contact of Parker Patent in suit No. 2,212,183 as evidenced by Figure 2 has been referred to in considerable detail by Appellant's witness Wolfram as meaning that the toe of the sleeve strikes the flare on the tubing first.

SHEET No. 2.

For the court's convenience there have been collected a series of diagrams on sheet No. 2 showing successively the toe contact of the patent in suit, Diagram A; the relationship of corresponding parts in prior Patent No. 1,977,241, Diagram B; the natural thinning-down angles of the flare on tubing as shown in Drawing AND10061, Exhibit 28E, and referred to as being the natural thinning angle of the flare [R. 576], Diagram C. In Diagram D is illustrated the nut and body of the NAF fitting (AN 817) which antedated the three-piece fitting. In Diagram E for convenience in interpreting the prior art and Appellant's patent are shown the sleeve, flare and body of the standard three-piece fitting presently in use, taken from Exhibit O.

Toe contact in a three-piece fitting for precisely the same purpose as the patent in suit is clearly shown in Parker's prior patent No. 1,977,241 issued on October 16, 1934. That patent from which Diagram B is taken

shows specifically in Figure 4 employment of a body 4 having a somewhat rounded nose to receive the tubing flare 9. A sleeve has an end portion 15 which is curved apparently so that when drawn tight it will accommodate the curve on the nose of the body. The presence of the curve on the end portion 15 produces initially a clear space between the flared inside face of the portion 15 *which is the sleeve head* and the exterior of the flare. That produces toe contact at the point 16 as illustrated in Figure 4. Patent 1,977,241 goes into detail to describe how the portion 15 yields as the fitting is tightened up where on page 2, column 1, lines 51 through 56, appears the language:

“When, however, the sleeve 2 is forced against the flared end of the tube by the turning of the coupling parts, the projecting portion 15 will yield causing the seat 16 to make intimate contact with the outer flared face of the tube end.”

That is the same thing which happens in the patent in suit and which has been so frequently described as the action of the sleeve head in the evidence presented in this case.

Appellant has made some weak protest about employment of patent 1,977,241 as prior art to show toe contact based upon the fact that the prior patent referred to does not reveal a solid sleeve head. However, solid sleeve heads are amply shown throughout the prior art. To make the sleeve head solid would be merely to go back and do what the prior art has always taught.

To make an angular difference between the inside flare of the sleeve head and *the angular nose on the body* so as

to accommodate the diminishing thickness of the flare on tubing because of its thinning out is certainly not worthy of a monopoly. The thinning out was recognized long before the advent of the patent in suit [R. 576].

To accommodate this thinning out the old two-piece coupling wherein the nut and sleeve were combined in one part employed an inside flared angle different from the angle on the nose of the body by four degrees which was and is today recognized as the result of natural thinning down of the metal in the flare. This relationship is depicted in Diagram D of sheet No. 2 in this brief. The old NAF fitting had a four degree angular difference [R. 576]. That was the angular difference adopted by the Army-Navy standardization copying that angular difference from the old NAF fitting [R. 581]. Appellant's witness Amon knew that relationship in the NAF fitting to antedate employment of a similar relationship by Parker [R. 995].

The witness Amon in an attempt to sidestep this obvious anticipation, referred to a double differential angle [R. 996-997]. The double differential angle, namely, the addition of an $18\frac{1}{2}^{\circ}$ angle at the inner end of the interior sleeve flare was a development of the Douglas Aircraft Company as a result of the efforts of one Harold Adams [R. 711]. It was a development entirely unrelated to what Appellant claims to be the differential angle of the patent in suit.

The old NAF two-piece fitting is still carried under a present AN Std. designation, namely AN-817. Masters recognizes the angular difference between the inside flare in the nut and the outside flare on the nose of the body as

comprising the differential angle in terms of the trade [R. 593]. With respect to the practice of the Lockheed Aircraft Company the presence of a differential angle is not important [R. 671]. On the world-famous Constellations manufactured by the Lockheed Aircraft Company and the P-38 fighter plane a combination fitting was employed utilizing nut, sleeve, and body as depicted in Exhibit R. The inside sleeve angle as there shown exclusive of the $18\frac{1}{2}^{\circ}$ rework angle flares out in a direction which makes toe contact impossible and hence no differential angle exists or is employed.

The differential angle was unimportant to the Douglas Aircraft Company. They used AC-811 fittings, an assembly of which is illustrated in Exhibit Q. The angle at the inside of the sleeve head flare is greater than the angle on the exterior of the flare on the tubing so that there can be no toe contact. Some 50,000 airplanes produced by North American Aviation Corp. were manufactured and operated successfully with fittings of that description [R. 703-704]. When there was a choice between using the AN fitting and another fitting, the North American Aviation Corp. chose another fitting. This company actually prefers the flareless fitting [R. 705].

THE $18\frac{1}{2}^{\circ}$ REWORK ANGLE.

On certain small sizes of fittings, namely, size 6 and smaller, and in those sizes only when the sleeve is made of a certain kind of metal, namely, copper silicon, the sleeves are made with an extra $18\frac{1}{2}^{\circ}$ angle in addition to the regular 33° angle.

The $18\frac{1}{2}^{\circ}$ angle, however, making what Appellant's witness Davies describes as a double differential angle, did not originate with Parker [R. 1087]. Appellant's witness Amon also recognizes that the $18\frac{1}{2}^{\circ}$ rework angle did not originate with Parker [R. 998-999].

Appellant's witness Amon, however, attempts to assert that a sleeve employing the $18\frac{1}{2}^{\circ}$ angle is one wherein toe contact is present.

“Yes; that's true. With this double angle sleeve, which is also called a modified sleeve, and it's also called a wedge-type sleeve, the 33-degree angle on the sleeve makes a narrow contact with the surface of the flare at the toe. That's what we spoke of as toe contact.” [R. 991.]

Reference is there made to Amon deposition Exhibit 8 which is Appellant's Exhibit 70 herein. The same witness attempts to show that the $18\frac{1}{2}^{\circ}$ angular flare closes up when the fitting is tight. This is not true.

SHEET No. 3.

The court is invited to compare Exhibit 28N [R. 1361] with a photograph showing the test results of tightening up a sleeve head with an $18\frac{1}{2}^{\circ}$ working angle on it. These results are transferred to Sheet No. 3 attached hereto for convenience in comparison. Diagram A is a reproduction of Exhibit 28N showing, according to Appellant's interpretation, how expansion converts toe contact to area contact in the patent in suit. Diagram B is taken directly from the photograph, Exhibit 78 [R. 1409], which shows the condition of an AN Std. fitting in which the $18\frac{1}{2}^{\circ}$ rework angle is employed. Clearly in the photograph, as reproduced in the diagram, the surface of the

$18\frac{1}{2}^{\circ}$ angle does not close up [R. 800]. It is not converted to area contact as claimed by Appellant. The photograph referred to as Exhibit 78 was one of several photographs appearing in a test study conducted by Harold W. Adams in the interest of the Douglas Aircraft Company on the occasion of his development of an $18\frac{1}{2}^{\circ}$ angle as a rework angle to prevent pinch-off of the tube end. To prevent that pinch-off the angular difference must be exceedingly great. As shown in another photograph an angular difference of no more than the normal 4° difference in the AN Std. fitting would not prevent pinch-off [R. 713, 714; Ex. VV; R. 711, 712]. The witness Adams who developed the $18\frac{1}{2}^{\circ}$ rework angle considered it as no more than a mechanical improvement [R. 735-736].

4. **Finding XII, That by Reference to the Parker Patent No. 2,212,183 No One Could Achieve the Results Called for Without Experimentation, Is Fully Supported by the Evidence.**

Although the Appellant's position appears to be that what the patent defines as novel is a sleeve head angle having a certain dimensional relationship one part with another, Appellant's witness Wolfram finds that the claims can be met by sundry other relationships. In examining those other suggested relationships, one significant factor becomes glaringly apparent; that is, at the large end of the sleeve head or, in any event, at the end of the sleeve head where the shoulder is located, there is contact between the sleeve head and the nut. The contact is in the "region of corner" to use the witness Wolfram's terminology. The "region of corner" is defined by Wolfram where he draws a circle around the portion labeled "corner" in figure 1 of Exhibit B [R. 396-397].

SHEET No. 4.

Sketches Figure 1 of Exhibit B, Figures 7 and 8 of Exhibit C, and Figure 9 of Exhibit E, are significant in determining Appellant's interpretation of what constitutes contact at the "region of corner." It means physical resistance of the nut to expansion of the large end of the sleeve head [R. 412-416]. For convenience in comparison Appellees have depicted on sheet No. 4 Wolfram's figures referred to and to this sheet have also been added corresponding sketches taken from the prior art Bjorling publication, Exhibit SS, captioned Diagram Q; Benzion patent No. 1,680,080 captioned Diagram R, and a reproduction of AN Std. No. 8 size fitting after tests corresponding to Exhibit O [as modified by Exhibit S] which for convenience in reference has been labeled Diagram S.

The witness Wolfram calls attention to the fact that he has shown no material difference in the sketches in the relative positions of the corner of the sleeve head and the inside of the nut [R. 397]. The figures referred to and illustrated on sheet 4 clearly show this continuity of relationship. In each case, in finger tight position, there is actual contact shown in a radial or laterally outward direction. Various shapes of sleeve head or nut are shown in the figures to depict a clearance at the free end or toe end of the sleeve head.

Diagram Q, the Bjorling publication, shows a clearance throughout the sleeve head. Diagram R, the Benzion patent, shows a clearance. Diagram S, the AN Std. fitting shows a clearance. Appellant's witness Wolfram explains by saying:

"Well, I think if there is a small amount of side wall contact in the region of the corner here on the

side wall and extending down from the corner a short distance, and then was spaced away from the—or there was a clearance between the two from there on down, that would be within the teaching of the patent.” [R. 399-400.]

It is apparent from this and the testimony immediately preceding and following this statement that what the witness means is that if there is a clearance at the corner the structure is outside the scope of the patent.

This interpretation is supported by an examination of the prior art as depicted on Sheet No. 4. If there were not contact at the corner, then the patent would be anticipated at least by Bjorling publication and by Benzion. Clearly also the AN Std. fitting follows the teaching of the prior art by providing a specific clearance at the corner and does not follow the teaching of the patent. With this Appellant’s witness Wolfram is in agreement [R. 416-417]. If the claims were interpreted as including the AN Std. fitting, then they would have to be invalid as anticipated by the prior art.

5. Finding XIII, That the Patentee Parker’s Contribution to the Art Is Narrow, if Any, and Claims Are Broader Than the Invention, if Any, Is Fully Supported in the Record.

It has been found that Appellant’s position with respect to the language of the claims and the disclosure of patents requires that there be contact radially outward in the “region of corner.” This is proved by Exhibits B, C and E, and has already been clearly illustrated in the diagrammatic study on Sheet No. 4. On Sheet No. 1, Diagram D, there is pictured the relationship of the ex-

terior of the sleeve head to the interior of the nut as disclosed by Figure 2 of the patent in suit.

The words of the claims where they define the sleeve head as being so shaped that the remaining portion of the head of the sleeve is free from contact with the nut while the sleeve makes contact only in the region of the corner, if interpreted to mean a clearance throughout the entire length of the sleeve head, are so broad as to read directly on the prior art as evidenced by Patent No. 1,977,240, Exhibit 26, and the 1935 Parker fitting as illustrated in Exhibit JJ. These relationships are shown respectively in Diagrams B and C of Sheet No. 1.

SHEET No. 5.

Tests were conducted to determine what actually happens to the sleeve head when the fitting is made up. The results are tabulated in Exhibit S [R. 597-611]. Sheet No. 6 appended hereto shows test results graphically portrayed, with dimensions shown to nearest .001 inch.

Diagram A shows an untightened Size 8 AN fitting. Clearances around the sleeve head marked in inches are those for an average of specimens 1, 2, 3, 5 and 6 within a standard nut. Diagram B shows that *no part* of the sleeve head expands enough under recommended torque to touch the nut. Diagram C shows that even at three times the recommended torque the large end of the sleeve head in the "region of corner" does not expand at all, contrary to Appellant's theoretical contentions. No part of the sleeve head would touch the nut even if there were no sleeve head angle. The figures of Exhibit S show considerable variation in dimension of commercial fitting

parts rendering Appellant's claims to benefits of the sleeve head angle clearly extravagant.

To interpret portions of the claims treating with sleeve head expansion broadly enough to read upon the AN Std. fittings, which show a clearance throughout the entire length of the sleeve head under all conditions, would render the claims so broad as to be anticipated by the prior art. Hence the claims interpreted as Appellant attempts to interpret them are broader than the invention, if any, and the AN Std. fittings (commercialized by Appellant) are not in accordance with the patent.

SHEET No. 6.

With respect to the differential angle or toe contact, the claims are broader than the invention, if any. If as Appellant interprets this expression differential angle or toe contact means contact at the outer end of the flare of the sleeve with the outer end of the flare on the tubing, then language cannot be interpreted to read upon the present AN Std. fitting. That fitting is illustrated in Defendant's Exhibit O and is shown in simple diagrammatic relationship on Sheet No. 6, Diagram D. There is only surface contact and not toe contact. If the patent claim is interpreted so broadly as to read upon the AN Std. fitting, then it would be invalid as reading upon prior Parker Patent No. 1,893,442, Plaintiff's Exhibit 25. That is shown diagrammatically on Diagram A on Sheet No. 6.

If a comparable interpretation were applied so that the claim were contended to read upon the AC811 fitting as illustrated in Defendant's Exhibit Q and as shown diagrammatically in Diagram F of Sheet No. 6, then by the same token the claim would be invalid as anticipated

by Patent No. 1,977,240, Plaintiff's Exhibit 26. This also is shown diagrammatically as Diagram B on Sheet No. 6.

To interpret the claim as reading upon the few small sizes of copper silicon or aluminum bronze sleeves of the AN Std. fitting [Exs. P and 70] and as shown in Diagram E on Sheet No. 6, Appellant is claiming the $18\frac{1}{2}^{\circ}$ rework angle which is something completely and entirely different from the patent. Even in this structure there is surface contact or face contact throughout at least one-half of the flared interior surface of the special sleeve head and this contact is nearer the base than the outer end of the flare [R. 750; Ex. VV].

It follows therefore that if the interpretation sought by Appellant which would render the claims infringed by the AN Std. fittings were followed, then the claims would have to be invalid as anticipated by the prior art. Moreover, those claims would be broader than the invention.

6. Finding XIV, That the Claims of Parker Patent No. 2,212,183, Are Not Susceptible of Any Interpretation Which Would Preserve Their Validity, Is Fully Supported in the Record.

This finding is amply supported by the evidence and particularly those portions of the evidence referred to in detail with respect to Finding XIII.

As has been pointed out in various portions of the evidence, the strength and judgment of the mechanic in exercising torque for making the fitting will be the determining factor in whether or not a fitting fits the claims [R. 585]; how the flare *on the tube* is made by the mechanic will spell the relationship between the interior of the sleeve head and the exterior on the flare of the tubing. If this be the measure of patentability, then Appellant's patent is not deserving of an interpretation of the claims which would preserve them.

7. Finding XV, to the Fact That the Differences, if Any, Disclosed in the Patent in Suit Over the Prior Art Do Not Involve Invention, Is Supported by Substantial Evidence.

The sleeve head angle so highly considered as a novel feature by Appellant is merely optional with the society of automotive engineers [R. 770].

The Lockheed Aircraft Company in inspecting fittings which are supplied without the sleeve head angle passes those fittings as acceptable [R. 644-645].

A clearance is just as good as a sleeve head angle [R. 58, 86, 87, 90-91, 100, 195-197].

The sleeve head angle is not important [R. 779].

The sleeve fills the nut anyway even though the sleeve head angle might be present [R. 867]. The sleeve head angle is of no value [R. 737]. Angular relationships are desirable but not critical and not important [R. 996]. Fittings without those relationships are satisfactory [R. 699.]

On important aircraft, namely, the Constellation, Lockheed Aircraft Company does not use a fitting with a differential angle but instead a fitting made up of assorted parts where the differential angle is clearly absent, Exhibit R [R. 874]. North American Aviation has constructed upwards of 50,000 airplanes using the AC811 fitting [R. 703-704] where there was no toe contact. Two-piece fittings used on the Douglass DC-3 gave good service after fifteen years of use [R. 740]. AN Std. fittings which feature, according to Appellant's interpretation, the novelties said to be present in the patent, are no panacea for tube failure [R. 703].

Ease of removal is the only advantage of the three-piece fitting over the two-piece fitting [R. 794] but *all* three-piece fittings provide ease of removal [R. 826]. The old 811 fittings are just as easy to remove as the AN Std. or the new AC811 [R. 902].

8. **Finding XVI, That Employment of Any Change in the Sleeve Head Angle and Differential Angle Involves No More Than Mechanical Skill and Cannot Justify a Patent, Is Supported by Substantial Evidence.**

It is just as easy to remove a sleeve with a cylindrical head as a sleeve with a sleeve head angle [R. 880]. The change from the old two-piece AC-810 to the AN Std. was a gradual elimination of minor objections [R. 887]. The introduction of torque wrenches was partly responsible for improvements in fitting performance [R. 890]. Anyone can also jam the present fitting, namely, the AN Std. fitting [R. 891-892]. The AC-811 fitting without the sleeve head angle worked satisfactorily [R. 1154-1155].

The real problem is not design of a fitting but how the mechanic puts the fittings together. The fitting would work as well if the sleeve had half as much area on the shoulder as it presently has [R. 1181-1182].

Improving the old 1934 fitting to improve the hoop stress was just a matter of opening up the clearance around the sleeve head [R. 1185].

How the tubing is flared is important [R. 1186]. Most important so far as surface contact is concerned is the surface contact of the flare against the body rather than the outside of the flare against the inside of the sleeve head. In other words, contacts other than those between the flare and the body are at best of secondary importance [R. 1190].

9. Minor Changes and Perfection of Workmanship Even if Present, Do Not Constitute Invention.

The evidence is conclusive here that what is shown in the patent in suit is at best no more than a slight dimensional change from the three-piece couplings of the prior art. Nothing unexpected was accomplished. Nothing therefore merits the protection of a patent monopoly.

In a recent Supreme Court case involving claims directed to a cashier's counter equipped with a three-sided frame with no top or bottom which when pushed or pulled will move groceries deposited within it by the customer to the checking clerk, the Supreme Court set up a standard of invention which should be followed.

"In the first place, the extension is not mentioned in the claims, except, perhaps, by a construction too strained to be consistent with the clarity required of claims which define the boundaries of a patent monopoly.

" 'The mere aggregation of a number of old parts or elements which, in the aggregation, perform or produce no new or different function or operation than that theretofore performed or produced by them, is not patentable invention.'

" 'The function of a patent is to add to the sum of useful knowledge. Patents cannot be sustained, when on the contrary, their effect is to subtract from former resources freely available to skilled artisans.'

Great A. & P. Tea Co. v. Supermarket Equipment Corp., U. S., 95 L. Ed. 118, 121, 122.

In a case involving cigar lighters for automobiles wherein a thermostat was used to break contact in a cordless cigar lighter, the Supreme Court had previously

ruled with respect to patents which make little advance over similar structures in prior art patents saying:

“More must be done than to utilize the skill of the art in bringing old tools into new combinations.”

“Strict application of that test is necessary lest in the constant demand for new appliances the heavy hand of tribute be laid on each slight technological advance in an art.”

Cuno Engineering Corp. v. Automatic Devices Corp., 314 U. S. 84, 86 L. Ed. 58, 51 USPQ 272.

The Supreme Court considering another modest advance in the technical art ruled:

“It is elemental that the mere substitution of equivalents which do substantially the same thing in the same way, even though better results may be produced, is not such an invention as will sustain a patent.”

Dow Chemical Co. v. Halliburton Co., 324 U. S. 320, 89 L. Ed. 973, 64 USPQ 412.

Facts in this case involve a “sleeve head angle” for one purpose and a “differential angle” for another purpose.

On a factual basis similar to the case here was one involving a signal torch consisting of an open flame over which had been placed a cap to keep out the rain which was perforated with holes to admit air and other holes to permit the outflow of products of combustion. The Court there held that the patent was invalid saying that, in view of the prior art showing almost the same thing:

“They solved it by merely bringing together the torch and cap. As before, the torch continued to

produce a luminescent, undulating flame, and the cap continued to let in air for combustion, to protect the flame from wind and rain and to allow it to emerge as a warning signal. They performed no joint function. Each served as separately it had done. The patented device results from mere aggregation of two old devices, and not from invention or discovery.”

Toledo Pressed Steel Co. v. Standard Parts, 307 U. S. 350, 355, 356, 83 L. Ed. 1334, 41 USPQ 593.

“And the improvement of one part of an old combination gives no right to claim that improvement in combination with other old parts which perform no new function in the combination.”

Lincoln Engineering Co. v. Stewart-Warner Corp., 303 U. S. 545, 549, 550, 82 L. Ed. 1008, 58 S. Ct. 662.

This Circuit is in accord with the standard of invention set forth by the Supreme Court.

In a patent involving certain alleged improvements in the Schick type electric shaver circumstances parallel the very modest advance or difference in the present coupling over the numerous three-piece couplings of the prior art. Concerning that, this Court said:

“As stated by this circuit in *Keszthelyi v. Doheny Stone Drill Co., et al.*, 59 F. 2d 3, 8, ‘A mere difference or change in the mechanical construction in the size or form of the thing used, in order to obviate known defects existing in the previous devices, although such changes are highly advantageous, and far better and more efficacious and convenient, does not make the improved device patentable. In order to be patentable, it must embody some new idea or principle not before known. It must, as before

stated, be a discovery, as distinguished from mere mechanical skill or knowledge.’”

Schick Service v. Jones, 173 F. 2d 969, 973, 974 (C. A. 9).

“To render invalid the claim of a combination patent it is not necessary that all the elements of the combination be found in a single prior patent. ‘If they are all found in different prior patents and no new functional relationship arises from the combination, the claim cannot be sustained.’”

Magarian v. Detroit Products Co., 128 F. 2d 544, 545 (C. C. A. 9).

A very recent patent suit in this Court involved claims to an apparatus for determining the winner of horse races by the so-called “photo finish,” employing a well-known slit camera at the finish line. This Court holding the claims invalid relied extensively upon Supreme Court decisions, saying:

“The test to be applied to such patents is that the combination must perform some new or different function—one that has unusual or surprising consequences.”

“The most that can be said for the patent in suit is that it rearranges the elements of the slit camera in such a manner that in the performance of their respective functions a higher degree of accuracy is obtained. But perfection of workmanship, however useful or convenient, does not constitute invention. . . .” (Citing numerous Supreme Court cases.)

Photochart v. Photo Patrol, Inc., F. 2d, 90 USPQ 46, 48.

Other circuits are in accord with these decisions, but limitations which should be observed in brief writing will preclude citation.

10. Appellees' Supplemental Argument.

Appellant has claimed many advantages for the Parker patent in issue. These Appellant has illustrated by numerous diagrams and particularly those of Exhibit 28. These advantages are met in every detail by the Parker three-piece fitting which was commercially produced in 1935 (prior art) and which is illustrated in assembled condition in Exhibit JJ. The points of advantage claimed are interesting to note.

That parts provide hoop tension [Ex. 28K], is equally true of the 1935 Parker three-piece fitting [R. 622]. That hoop tension locks the head against loosening was likewise true. That free expansion corrects out of round sleeves Exhibit 28M, was true of the old three-piece fitting [R. 623]. Although toe contact is claimed to make the amount of nut turning less critical, Exhibit 28Q, there is no toe contact in the AN Std. fitting, Exhibit O.

That the fitting provides more room for expansion where expansion is greatest, Exhibit 28P, that it permits maximum shoulder contact, Exhibit 28Q, that it facilitates disassembly of the sleeve from the nut, Exhibit 28R, that it provides additional clearance to avoid locking of the sleeve to the nut, Exhibit 28S, is as true of the old 1935 three-piece fittings [R. 623]. That the three-piece fitting prevents scoring of the flare, Exhibit 28T, prevents twisting of the tube, Exhibit 28U, facilitates disassembly of bent tubes, Exhibit 28V, and facilitates disassembly of damaged or tagged tubes, Exhibit 28W, is equally true of the old 1935 Parker fitting [R. 624-625].

If AN Std. fittings is synonymous with "Parker fittings" or "Parker couplings" (App. Op. Br. 27), then the Parker fitting is in the public domain because Parker used the same sleeve clearance and differential angle on February 18, 1935 [Ex. KK], and that was called a

Parker type fitting. This was true in the size 6 and other sizes were comparable. See the chart of sundry sizes on Exhibit KK. That this is true is undisputed.

“Parker fittings” were known as such in 1934 but at that time there was no such thing as AN Std. Neither was there then in existence the patent in suit. Some Parker fittings were two-piece fittings. Therefore Appellant’s insistence that the term “Parker fittings” or “Parker type fittings” is indicative of fittings made in accordance with the patent in suit is utterly fallacious. Disproof of all of Appellant’s contentions lies in the record of evidence and exhibits herein presented to this Court of Appeals and pointed out for the Court’s convenience in the foregoing brief.

When the structure of the patent in suit was designed no great problems needed solving. Three-piece fittings were satisfactorily used to a wide extent.

See the following cross-examination:

“Q. (By Mr. Huebner): Mr. Wolfram, are you aware of any problem that confronted the aircraft industry with respect to flared tube fittings prior to the application for the patent in suit, which application was originally filed March 2? A. No, not directly.

Q. You would not then be able to testify of your own knowledge as to any particular problems that may have been solved by the advent of this patent in suit, would you? A. No problems which existed before the application date, no.” [R. 483.]

Minor dimensional changes proposed by the patent in suit are consequently not worthy to be construed as inventions. They warrant being considered as no more than a mechanic’s refinement of a good fitting already in use.

II.

The Parker Patent No. 2,212,183 as to All Three Claims Is Invalid for Uncertainty and Failure to Meet the Requirements of Revised Statutes, Sec. 4888, 35 U. S. C. 33.

THE STATUTE.

The pertinent provisions of the statute are here quoted for convenient reference, with italics by us, for emphasis:

“Before any inventor or discoverer shall receive a patent for his invention or discovery he shall make application therefor, in writing, to the Commissioner of Patents, and shall file in the Patent Office a *written description* of the same, and of the manner and process of making, constructing, compounding, and using it, *in such full, clear, concise, and exact terms as to enable any person skilled in the art or science to which it appertains*, or with which it is most nearly connected, *to make, construct, compound, and use the same*; and in case of a machine, he shall explain the principle thereof, and the best mode in which he has contemplated applying that principle, so as to distinguish it from other inventions; *and he shall particularly point out and distinctly claim the part, improvement, or combination* which he claims as his invention or discovery * * *.” (R. S. Sec. 4888, 35 U. S. C. 33.)

SOME LEADING SUPREME COURT DECISIONS.

A brief resumé of several Supreme Court decisions on the subject furnishes a logical setting for considering the facts in the present case, and the application of the law in the Ninth Circuit:

The doctrine that patent claims must be definite, clear and unambiguous has been consistently followed by the

Supreme Court. In the early case of *Merrill v. Ycomans*, 94 U. S. 568, 573, it was said:

“The developed and improved condition of the patent law, and of the principles which govern the exclusive rights conferred by it, leave no excuse for ambiguous language or vague descriptions. The public should not be deprived of rights supposed to belong to it, without being clearly told what it is that limits these rights. * * * It seems to us that nothing can be more just and fair both to the patentee and to the public, than that the former should understand and correctly describe just what he has invented, and for what he claims a patent.”

In *Bates v. Coe*, 98 U. S. 31, 25 L. Ed. 68, the Supreme Court explained the purposes of the statutory requirement in the following language:

“Accurate description of the invention is required by law, for several important purposes; (1) that the government may know what is granted and what will become public property when the term of the monopoly expires. (2) That licensed persons desiring to practice the invention may know, during the term, how to make, construct and use the invention. (3) That other inventors may know what part of the field of invention is unoccupied. *Gill v. Wells*, 22 Wall. 27 (89 U. S. XXII, 711).”

The *Incandescent Lamp Patent*, 159 U. S. 465, 40 L. Ed. 221, held a patent for an incandescent conductor for an electric lamp, invalid because the claims in issue were too indefinite.

Holland Furniture Co. v. Perkins Glue Co., 277 U. S. 245, 72 L. Ed. 868, cites cases, condemns claims on the

result or function of a machine, and applies the rule to a composition of matter.

The *Merrill v. Yeomans* case was cited with approval many years later by Mr. Justice Brandeis in the case of *Permutit Co. v. Graver Corp.*, 284 U. S. 52, 60, with the statement that:

“The statute requires the patentee not only to explain the principle of his apparatus and to describe it in such terms that any person skilled in the art to which it appertains may construct and use it after the expiration of the patent, but also to inform the public during the life of the patent of the limits of the monopoly asserted, so that it may be known which features may be safely used or manufactured without a license and which may not.”

In the *United Carbon* case, *infra*, the Supreme Court held invalid claims on carbon black drawn in the following language:

“1. Substantially (sic) pure carbon black in the form of commercially uniform, comparatively small, rounded, smooth aggregates having a spongy or porous interior. 2. As an article of manufacture, a pellet of approximately one-sixteenth of an inch in diameter and formed of a porous mass of substantially pure carbon black.”

After discussing the various qualifying words and phrases, the Court said:

“So read, the claims are but inaccurate suggestions of the functions of the product, and fall afoul of the rule that a patentee may not broaden his claims by describing the product in terms of function. *Holland Furniture Co. v. Perkins Glue Co.*, 277 U. S. 245, 256-258; *General Electric Co. v. Wabash Corp.*, *supra*, 304 U. S. at 371-372

[37 U. S. P. Q. at 469-470]. Respondent urges that the claims must be read in the light of the patent specification, and that as so read they are sufficiently definite. Assuming the propriety of this method of construction, cf. *General Electric Co. v. Wabash Corp.*, *supra*, 304 U. S. at 373-375 [37 U. S. P. Q. at 470], it does not have the effect claimed, for the description in the specification is itself almost entirely in terms of function.”

United Carbon Company v. Binney & Smith Company, 317 U. S. 228, 234, 63 S. Ct. 165, 87 L. Ed. 232, 55 U. S. P. Q. 381, 384.

Parenthetically, in *Anraku v. General Electric Co.*, 9 Cir., 80 F. 2d 958, the Circuit Court of Appeals of the Ninth Circuit affirmed the district court in holding certain claims sufficiently specific, valid and infringed, and certiorari was denied. In *General Electric Co. v. Wabash Appliance Corporation*, 2 Cir., 91 F. 2d 904, the same patent and the same claims were in issue, and the Second Circuit reversed the district court in holding the claims valid and infringed, and held the patent invalid because anticipated.

Certiorari was granted because of conflict, and the Supreme Court affirmed the Second Circuit, holding the claims were *not sufficiently definite*, and that they *were functional and invalid*.

General Electric Co. v. Wabash Appliance Corp., 304 U. S. 364, 371, 58 S. Ct. 899, 82 L. Ed. 1402, 37 U. S. P. Q. 466.

Mr. Justice Reed, speaking for the Supreme Court, said:
“* * * But the vice of a functional claim exists not only when a claim is ‘wholly’ functional, if that is ever

true, but also when the inventor is painstaking when he recites what has already been seen, and then uses conveniently functional language at the exact point of novelty.”

The claim selected as typical, in the *General Electric* case was Claim 25 in Patent No. 1,410,499, relating to tungsten filaments for incandescent lamps. The claim read as follows:

“25. A filament for electric incandescent lamps or other devices, composed substantially of tungsten and made up mainly of a number of comparatively large grains of such size and contour as to prevent substantial sagging and offsetting during a normal or commercially useful life for such a lamp or other device.”

However, since the *General Electric* case involved product claims, some question arose as to whether or not the rule enunciated therein applied to apparatus claims.

This further question was resolved in the case of *Halliburton Oil Well Cementing Co. v. Walker, et al.*, 329 U. S. 1, 9, 71 U. S. P. Q. 175, wherein this Court speaking through Mr. Justice Black stated as follows:

“The language of the claim thus describes this most crucial element in the ‘new’ combination in terms of what it will do rather than in terms of its own physical characteristics or its arrangement in the new combination apparatus. * * *”

The *General Electric* and *Halliburton* cases in holding the patents there involved to be invalid, emphasize that the violence done is in using functional language to describe the main feature of the invention.

The *Halliburton* decision was criticized by us when we argued before the Supreme Court in *Faulkner v. Gibbs*, 338 U. S. 267. The criticism sought clarification, and in *Faulkner v. Gibbs* the Supreme Court did distinguish the patent in such case over the patent, or at least the doctrine involved in, *Halliburton* but did not overrule the principle of the *General Electric* decision.

Thus both statute and case law require sufficiency in the description of an invention and certainty in the claims. We will subsequently refer to decisions by the Court of Appeals for the Ninth Circuit.

FINDINGS, CONCLUSIONS AND EVIDENCE ON THIS DEFENSE.

This defense was pleaded in paragraph 18 of the Answers of both defendants [R. 15 and 46], substantial evidence was adduced in support of the point, *i. e.*, the patent itself, and admissions by plaintiff's expert witness, and the District Court in its opinion sustains the defense [R. 67-73]. Pertinent findings made by the District Court are numbered VII, VIII, XII, XIII, XIV [R. 80-85], and Conclusions of Law numbered 2 and 3 [R. 86-87] hold the patent invalid on these grounds.

Fatal defects are noted both in the description (sometimes referred to as the specification), and in the claims.

The description omits material information, and renders the entire patent void for failure to describe the alleged invention "in such full, clear, concise, and exact terms as to enable any person skilled in the art or science to which it appertains, * * * to make, construct, compound and use the same * * *."

The three claims fail to “particularly point out and distinctly claim the part, improvement, or combination which he claims as his invention or discovery * * *.” The Parker patent claims are classifiable as “functional at the exact point of novelty, if there is any novelty,” as “uncertain,” as “indefinite,” as “ambiguous,” as “overclaiming the alleged invention.” Some of the reported decisions deal with patent claims which fall into only one of these categories. Any one is sufficient to invalidate the patent. All are condemned by the statute and court decisions. The Parker patent must fall from any one of them, and it is susceptible of being catalogued under all of them.

**1. Sampling of Evidence on Deficiency of Description
Clearly Supports This Defense.**

On cross-examination, John N. Wolfram, Parker's expert, conceded that the Parker Patent No. 2,212,183 makes no mention of the kind of metal to be used [R. 375], there are no dimensions recited or stated [R. 375], there is no recommended torque specified for tightening up of the nuts [R. 376], in actual practice the torque would depend on a number of factors [R. 377], generally, if you had a small fitting the torque would normally be less than for a large fitting, and steel would require greater torque than aluminum [R. 377]. These factors are important, yet none of them are even hinted at in the patent.

The patent description is deficient concerning the “differential” angle [R. 421-22]. See the following cross-examination of Wolfram:

“Q. Now, would you refer to the patent in suit, please? Look at Fig. 2 to start with. There are

two angles, to which I believe reference has been made. I would like first to inquire concerning the angle between the inside of the sleeve head and the outside of the tube. It has been called, has it not, a differential angle? A. Yes. The angle bounded by the lines B and C, I think we refer to as a differential angle.

Q. What does the patent teach that that angle in there would be?

The Court: What do you mean?

Mr. Huebner: In degrees, your Honor.

The Court: You mean in degrees?

Mr. Huebner: In degrees:

The Witness: I don't recall that the patent states what the degrees should be.

Q. (By Mr. Huebner): How would one manufacturing this item from the patent know what degree angle to put in there? A. Well, the drawing clearly illustrates that it is a small angle.

Q. What is your interpretation of a small angle as it applies to this disclosure, in degrees now? Let's get down to brass tacks. A. I think that the angle in degrees could vary depending upon what you are designing the fitting for, whether you are designing a lightweight fitting or a heavyweight fitting for maybe railroad work, or something else.

The Court: There is nothing in the patent, is there, to indicate what the slope or what the angle is on the sleeve, that is C on Figure 2?

The Witness: I think what the patent states is that this angle is cut away at an angle that is great enough so that you will obtain initial contact at the point of the sleeve, and it doesn't matter too much exactly what the angle is, as long as you bring about that result."

A clear instance of the inaccuracy and insufficiency of the Parker patent drawings is revealed by Appellant's chart on page 9 of its Opening Brief. The sleeve head is shown as being slightly reduced in transition from "finger tight" to "fully clamped" condition. The "differential angle" is illustrated to be as great or greater in degrees to start with as the "sleeve head angle," and in fully clamped condition this large differential angle has wholly disappeared. Under the latter circumstance, the sleeve head angle would have more than disappeared; the sleeve head would be pushing out into the wall of the nut; yet the patent drawing shows that an angular spacing yet remains.

The patent description is deficient concerning the "sleeve head" angle [R. 439-442]. Cross-examination of Wolfram continued:

"Q. All right. Now, refer back, if you will, to another angle that is talked about in the patent. You can look at Figure 2 of the patent in suit. Is there any dimension in degrees, that is to say any specification in degrees, recited in the patent regarding the angle d, small letter d, with an arrow pointing to a line? That is the angle on the outside of the sleeve head. A. I don't recall that the patent sets forth a specific angle in the written part of the description.

Q. Well, it doesn't give it on the drawing either, does it? A. Not in degrees.

Q. And it doesn't tell you in the claims what the degree angle is, does it? A. It doesn't define it in degrees.

Q. Now, as an engineer or an expert in this field, how many degrees would make such an angle?

A. Whatever is necessary to obtain the function or the principle that is involved.

Q. Well, how would you go about finding that out, then? A. Well, I think the patent states that there is a close clearance or that the sleeve head is so shaped that it will contact in the upper region or the region of the clamping shoulder, and that is spaced in the lower region. And once that principle is brought to light, I think that it wouldn't be too much trouble to determine an angle that would be satisfactory."

Then follows a short section already quoted, but for continuity is here repeated:

"Q. If it is so simple, just tell the court briefly so."

Q. If it is so simple, just tell the court briefly how you go about determining what the angle will be. A. Well, I think that the specific angle could probably best be determined by straightforward engineering analysis, or else experiment, either one.

Q. Would you be able to determine it? Do you have enough knowledge of the principles involved to figure that out? A. I think if I set about doing it I think that could be determined.

Q. You are a man skilled in the art; how would you determine what that angle should be? Tell the court the line that you would follow in determining what the angle should be. A. Well, as I mentioned, it could be determined by a stress analysis or by experiment.

Q. Is that your complete answer? A. I think so.

Continuing:

“Q. Are there any circumstances under which that angle might be as much as 10 degrees and operate satisfactorily? A. That depends upon what you are designing for.

Q. I said any circumstances, any fitting embodying these principles, and you can make your own example if you want to, is there any fitting that could be built up out of this patent and use an angle as much as 10 degrees and be within the teaching of the patent? A. Yes, I think it could.

Q. What is the least angle that could be employed and embody the teaching point of the patent? A. *Well, the least angle would be that angle that would still produce the principle that the patent teaches.*

Q. Well, in degrees, what is the least possible angle in degrees under any materials that you want to assume that are put into this thing that would work as the patent teaches and be within the scope of the patent subject-matter? A. Well, that is a very broad question.

Q. Sure. You know a lot about the art. A. I don't think that there is any specific cut-off point, because you could always hedge another minute or two minutes, perhaps.

Q. Would 1/10 of one degree comply with the teaching of the patent? A. It might if you had the other parts of the fitting proportioned, likewise.”

2. Sampling of Evidence on Deficiency of the Parker Claims Clearly Supports This Defense.

Now, when we turn to the Parker claims, we find even more serious uncertainty and ambiguity, because the claims measure the “invention.”

On direct examination, Wolfram had testified at length as to the meaning of the three claims of the patent, starting at R. 291.

On cross-examination he was asked [R. 369-70] to illustrate as many different forms as occurred to him as exemplifying the variations or so-called minor changes in construction and shaping of parts as he feels come under the patent. They were produced in his cross-examination and explained, beginning at R. 394, Defendants’ Exhibits B and C [reproduced R. 1411 and 1412], and Defendants’ Exhibit E, R. 412 [reproduced R. 1413]. They are seen in Sheet No. 4 of the Appendix to this brief. They *vary materially* from the drawings in the Parker patent but Wolfram says they fall under the phrases in the claims “so shaped that.”

Then Wolfram was cross-examined on the wording and interpretation of the claims. Claim 1 is discussed commencing R. 428, Claim 2 at R. 442, and Claim 3 at R. 446.

Element by element, Wolfram admitted that everything in the three claims was old in the art except the functional phrases introduced by the words “so shaped.”

For example, he admitted that in Claim 1 the following phrase is the “new structure” or *crux* of the Parker contribution:

“so shaped that the initial contact of the head with the flared end of the tube is at the free end of the

head and adjacent the outer end of the flared end of the tube," [R. 430 and 436].

In attempting to reduce this language to terms of a physical structure he remarked "after all the words are merely trying to express a principle." [R. 438.]

The phrase in Claim 2 which Wolfram says distinguishes over the prior art is:

"the outer surface of said head and the said inner wall of the coupling member being so shaped relative to each other that when the sleeve head expands during the clamping action they will contact only in the region of the clamping shoulder." [R. 443.]

In Claim 3 Wolfram says there are *two crucial features*. One is the above quoted "so shaped" phrase which characterizes Claim 1 [R. 447]. The other is the "so shaped" phrase quoted immediately above as to Claim 2 [R. 447].

The point was summarized by the following questions and answers at R. 448:

"Q. And both of the crucial clauses are characterized by the limiting words "so shaped," is that right? A. Yes, the words "so shaped" are repeated in both of those clauses.

Q. As a matter of fact, the words "so shaped" qualify the crucial features of each one of the three claims of the patent, don't they? A. Did you say the three claims of the patent?

Mr. Huebner: Perhaps you had better read the question.

(The question was read by the reporter.)

The Witness: That is correct, those terms or words appear in all three claims."

The foregoing is but a sampling of the evidence establishing that the Parker patent is uncertain, indefinite and ambiguous.

THE FINDINGS OF THE DISTRICT COURT SHOULD NOT
BE DISTURBED ON APPEAL.

The findings of the District Court in this respect will not be disturbed by a Court of Appeals unless there is no substantial evidence, in support thereof, or the District Court's decision in such respect was wholly erroneous.

Research Products Co. v. Tretolite Co. (9 Cir.),
106 F. 2d 530;

Bank v. Rauland Corp. (7 Cir.), 146 F. 2d 19.

If there is conflicting evidence, the trial court's findings will ordinarily prevail. *Bank v. Rauland, supra.*

Here, the defense is made out by cross-examination of plaintiff-appellant's expert who is also an employee.

"A case that can be made out in all its elements by cross-examination of opposing witnesses is a strong case."

Eibel Process Co. v. Minnesota & Ontario Paper Co., 261 U. S. 45, 53, 67 L. Ed. 523, 528.

Here we have a patent in which the "differential angle" is said to be important and which furnishes the "crucial element" (if there be one) in Claim 1, and one of the "crucial elements" in Claim 3, yet *nowhere in the description or drawings is the range of degrees, or preferred degree, of angle, stated.* The angular difference must relate to something. It could not be any angle selected at random because obviously an angle exceedingly great would be unworkable.

An examination of the history of the differential angle demonstrates that it was established long before the patent in suit and was employed in the old NAF two-piece coupling which was used in 1935 and before. The

body of the two-piece coupling had an angle at the nose of 37° , and an angle of 33° on the flared portion of the nut. These are the same angles which are used today on the nose of the body and the flare of the sleeve portion of the nut for the AN Std. coupling. Amon Dep. [R. 995, 996]; Davies Dep. [R. 1085].

Plaintiff attempts to define "differential angle" [R. 195]. By this description Plaintiff's witness, Wolfram, attempts to suggest that the angle on the inside of the sleeve is different from the angle on the tube flare so that the free end of the sleeve contacts the flare first. This is a different conception of "differential angle" from that suggested by Plaintiff's other witnesses, Davis, its chief engineer, and Amon.

The claims do not identify this structural feature of the purported invention as an angle, the claims say no more than that certain well-known parts are "*so shaped that*" certain functional relationships result.

Plaintiff has attempted to support the differential angle by attributing to it special safety features such as the prevention of a pinch-off of the flare on the tube. Use of a differential angle would not prevent pinch-off, whereas the Douglas improvement feature of the AN fitting does prevent it [R. 830-31].

The "sleeve head angle" is said to be the crucial element in Claim 2, and one of the crucial elements in Claim 3, yet the *degree of angle, or range of degrees permitted, is not stated in the description or shown in the drawings; and is not identified as an angle at all in the claims.* Here again this most important element is described as "*so shaped that.*"

In point of fact the 811 three-piece Parker coupling used in 1935 before the sleeve head angle was introduced was "so shaped that" the sleeve head could expand during the clamping action [R. 115, 185]. The suggested shaping is clearly depicted by the clearance shown in defendants' scale drawing Exhibit JJ [R. 622]. As evidenced by recent trends exemplified by recommendations of the Society of Automotive Engineers employment of a sleeve head angle is purely optional [R. 723b, 770].

The Plaintiff, over the period of years ante-dating the patent in suit, discovered that the clearance first advocated by Plaintiff's Patent 1,893,442 should be made greater to relieve sticking of the sleeve in the nut. In 1930 the maximum clearance was .002 inches, and the minimum zero; in 1935 in the 6 size, for example, the maximum clearance had been increased to .009, and the minimum .005; in 1940 the maximum clearance in the 6 size was increased to .013, and the minimum .007 [R. 712, 679-80]. Plaintiff's letter to Wright Field October 25, 1940 [Pltf. Ex. 65] sets forth recommendations in harmony with these figures.

North American Aviation Company used A. C. 811 fittings in 1936 and found them satisfactory [R. 706, 743]. There is in fact no advantage achieved by employment of a sleeve head angle [R. 736-37], nor in restricted radial expansion at the large end of the sleeve [R. 738-39, 782, 797]. Plaintiff's witness Amon, Manager of Aircraft Sales, said that the early Parker 811 coupling had a clearance between the sleeve head and the nut [Amon Dep. 104, 105; R. 1016].

When there is taken into consideration the wealth of anticipating structure showing a clearance to be common practice, claims relying upon expressions such as “so shaped that” run square into the type of claims condemned in the *General Electric* and other cases. These claims are not true novel combination claims of the type upheld by the Supreme Court in *Faulkner v. Gibbs*, where that court distinguished over the *Halliburton* decision.

If there is any novelty attempted to be claimed, it is based on (a) providing the “differential angle” and (b) providing the “sleeve head angle.” But the failure to specify these features *per se* in the claims is fatal to their validity.

Stated otherwise, the claims are broader than the invention, if there be invention. Consequently they are invalid. They are not even susceptible to a narrow enough interpretation which would save them, first because their language is broadly and generally declarative in a functional way, and second, there is not sufficient foundation in the description and drawing to provide the limits of structural angles and proportions which would have to be read into them.

THE COURT OF APPEALS FOR THE NINTH CIRCUIT HAS
RECOGNIZED AND APPLIED R. S. SEC. 4888, 35 U. S.
C. 33 TO INVALIDATE PATENTS.

A patent on improvements in flotation of minerals was held insufficient under the law where the purported invention was a mere addition of an agent described in terms of physical characteristics.

Metals Recovery Co. v. Anaconda Copper Min. Co.
(9 Cir.), 31 F. 2d 100.

The rule that a patent must be definite and certain is recognized by this Court in *Research Products Co., Limited, et al. v. Tretolite Co., et al.* (9 Cir., 1939), 106 F. 2d 530, but the patent was held sufficient, being a broad new development and citing chemical characteristics and specific examples of chemicals suitable for the patentee's purpose. The opinion distinguishes over *Metals Recovery Co. v. Anaconda Copper Mining Co., supra*, based upon the discussion of the Supreme Court in the *Incandescent Lamp* case, *supra*, and *Corona Cord Tire Co. v. Doan Chemical Corporation*, 276 U. S. 358, 48 S. Ct. 380, 72 L. Ed. 610.

A claim for a control system for an elevator car was ruled invalid because of indefiniteness and because it covered only a function. The claim fully stated the result to be accomplished by the invention but the only means supplied for accomplishing it was a series of switches, and any system controlled by electric switches for accomplishing the same result would have been an infringement. The Court, referring to Supreme Court decisions, commented that the distinction between a claim invalid for lack of sufficient description and a claim invalid because it claims too much is, in some cases at least, an illusory one. We quote from this Court's opinion:

"In the instant case, just as *Wyeth vs. Stone and O'Reilly vs. Morse*, the difficulty was occasioned by failure to incorporate in the claim a sufficient description of the invention; the result, however, was not an indefinite claim, but a claim broader than the patent law permits."

Otis Elevator Co. v. Pacific Finance Corp., 68 F. 2d 664, 669, rehearing denied with accompanying opinion, 71 F. 2d 641.

A patent for an improvement in trailer wagons was held invalid by this Court for failure to particularly point out and distinctly claim the asserted invention.

Reinharts v. Caterpillar Tractor Co. (9 Cir.), 85 F. 2d 628, 637 (cert. den., 302 U. S. 694, 58 S. Ct. 13, 82 L. Ed. 536).

This Court held two patents invalid which related to parasiticides for internal use in animals, because of use of functional language at the exact point of novelty.

Farmers' Cooperative Exchange v. Turnbow, et al. (9 Cir.), 111 F. 2d 728.

The Court said, at page 732:

“Patents, whether basic or for improvements, must comply accurately and precisely with the statutory requirement as to claims of invention or discovery.

* * *

“The claims here violate that rule, and are void because ‘conveniently functional language at the exact point of novelty’ is used. *General Electric Co. v. Wabash Appliance Corp.*, *supra*, 304 U. S. 371, 58 S. Ct. 903, 82 L. Ed. 1402. See, also, *Wood v. Underhill et al.*, 46 U. S. 1, 4, 5 How. 1, 4, 12 L. Ed. 23; *The Incandescent Lamp Patent*, 159 U. S. 465, 474, 16 S. Ct. 75, 40 L. Ed. 221.

* * * * *

“While the claims may be limited by the specification, the instant case falls within the rule stated in *General Electric Co. v. Wabash Appliance Co.*, *supra*, 304 U. S. 374, 58 S. Ct. 904, 82 L. Ed. 1402, that

the 'claims in suit seek to monopolize the product however created, and may not be reworded, in an effort to establish their validity, to cover only the products of the process described in the specification, or its equivalent.' ”

Patent No. 1,757,978, Claim 1, relating to a mechanical dry shaving machine, comprising, among other things, blades and walls, was held invalid under 35 U. S. C. 33 where it could not be ascertained from the claim or from the specification what kind of blades or what kind of walls the claim refers to.

Motoshaver, Inc. v. Schick Dry Shaver, Inc. (9 Cir.), 112 F. 2d 701.

This Court applied the principles of *United Carbon Co. v. Binney and Smith*, 317 U. S. 228, 63 S. Ct. 165, 87 L. Ed. 232, and *General Electric Co. v. Wabash Appliance Corp.*, 304 U. S. 364, 58 S. Ct. 899, 82 L. Ed. 1402, holding invalid for vagueness and uncertainty, claims describing an exposure of materials as “for a period *sufficient* to effect antirachitic activation but so limited as to avoid subsequent *substantial injury* to the antirachitic principle.”

Vitamin Technologists v. Wisconsin Alumni Research (9 Cir.), 146 F. 2d 941; cert. den., 325 U. S. 976, 89 L. Ed. 1994.

OTHER COURTS OF APPEAL HAVE FOLLOWED THIS LAW.

The law which we here invoke has been recognized and applied consistently by the Courts of Appeals in other Circuits to the extent that citation of cases would un-

necessarily burden this brief. Long lists of them may be found in the notes following 35 U. S. C. A. 33.

We have selected only one additional decision, because it is probably the most recent published opinion on the question, and is by the United States Court of Customs and Patent Appeals, a body well versed in patent law.

Patent claims were refused an applicant for a patent on an improved duplicating blank where the improvement was defined in the claims as a coating which is "electrically conductive." The Court stated (our emphasis):

"All of the claims before us are drawn to define structure and in order to be patentable they must depend upon the novel structure set out. *Properties, functions, uses, and results* that may appear from the defined structure *are not definitions of it* and may not be solely relied upon to make a claim containing them patentable unless there is a positive setting out of the structure itself in the claims which, of course, must be responsible for properties, functions, uses, and results thereof."

In re Dalton and Cooley (C. C. P. A., May, 1951), 188 F. 2d 170, 89 U. S. P. Q. 271, 273.

3. Appellant's Opening Brief on This Point Is Lacking in Accuracy and Its Authorities Do Not Support Its Argument.

Appellant's brief asserts at several places that the Patent Office Examiner approved the sufficiency of the Parker description and the adequacy of the claims. However, that would not be binding on this Court.

Moreover, the allowance of the Parker patent was not even in accordance with the policy of the higher Patent

Office Tribunals, and it should never have been allowed by the Examiner who passed on the Parker application. In *Ex parte States Lee Lebbby*, 4 U. S. P. Q. 482, the Patent Office Board of Appeals affirmed the rejection of claims for a projector with the following comment: "If claim 2 distinguishes at all from these references, as thus combined, it is not in structure but in the functional statement following '*so shaped*' which is not sufficient to carry the claim." (*Italics ours.*)

Claims 2 and 5, both rejected on this ground, read as follows:

"2. In a projector, the combination of a mirror having a spherical reflecting rear face and a refracting front face, and a light source, the light source comprising a substantially V-shaped filament with its apex toward the mirror, **the mirror being so shaped** as to project both convergent and divergent rays, and the location of the filament with respect to the mirror being such that the most convergent ray projected by the mirror and emanating from the apex of the filament does not cross the principal axis of the projector within the working distance of the projector.

"5. In a projector, the combination of a mirror, having a spherical reflecting rear face and a refracting front face, and a light source comprising a substantially V-shaped filament with its apex toward the mirror, **the mirror being so shaped** as to project both convergent and divergent rays, and the location of the filament with respect to the mirror being such that the most convergent ray projected by the mir-

ror and emanating from the apex of the filament does not cross the principal axis of the projector within the working distance of the projector, the two limbs of the filament being in substantially the same horizontal plane.”

Appellant’s argument on this phase of the case is a contention that the District Court misconstrued the language of the controlling statute, failed to consider the nature of the Parker invention, that there is no record evidence that the Parker specification is incomplete, that claims need only point out the invention (not redescribe it), and that without exception, the decided cases hold that claims like Parker’s are proper.

We have re-read the District Court’s Opinion and find no basis for a charge that the Court misconstrued the language of the controlling statute. The Opinion quotes the statute, correctly explains the nature of the Parker asserted invention, and properly applied the statute. If there were any isolated instances in the Opinion where the language might not be that of a patent lawyer or a “patent” judge, they were inconsequential, and were clarified or corrected (if such were necessary) in the Findings and Conclusions.

Appellant’s broadside comment that there is no record evidence that the Parker specification is incomplete, is answered by the sampling of such evidence in the foregoing part of our brief.

The argument that claims need only “point out” the invention is not accurate. The statute says that the patentee “shall particularly point out *and distinctly claim* the part,

improvement, or combination which he claims as his invention or discovery.”

Appellant’s assertion that without exception, the decided cases hold that claims like Parker’s are proper, is completely refuted by the decisions we have cited, and which could be multiplied many times.

Even Appellant’s own citations do not support him, as we shall next point out.

Mumm v. Jacob E. Decker & Sons, 301 U. S. 168, cited on page 45 of Appellant’s Opening Brief, dealt with the burden of proving a patent to be anticipated—not with claims charged to be indefinite.

Western States Mach. Co. v. Hepworth, 147 F. 2d 345, also cited on pages 45 and 48, dealt with questions of inoperativeness said to arise from crossed wires in an electrical circuit, and want of invention—not with claims charged to be indefinite.

Smith v. Snow, 294 U. S. 1, cited on page 48, was concerned with the doctrine of equivalents—not with claims charged to be indefinite.

Payne Furnace & Supply Co. v. Williams-Wallace Co. (9 Cir.), 117 F. 2d 823, cited on pages 48 and 50, considered disclaimers—not claims charged to be indefinite.

Charles Peckat Mfg. Co. v. Jacobs (7 Cir.), 178 F. 2d 794, cited on page 49, related to the interpretation of claims in the light of the description, “where the claims expressly limit the claimed invention to the device specified and described explicitly, with definite limitations

* * *

In *Shull Perforating Co. v. Cavins* (9 Cir.), 94 F. 2d 357, cited on page 50, this Court sustained “means” claims on reference to the drawings and specification.

Schreyer v. Chicago Motocoil Corp. (7 Cir.), 118 F. 2d 852, cited on page 51, held a patent invalid for anticipation and want of invention. The Court did reject the defense of indefiniteness and functionality directed to one of the claims, but in that claim the disputed element was affirmatively identified as a physical part in the combination. It was not a case of “so shaping” old parts to perform some function.

The *Paper Bag* case, 210 U. S. 405, mentioned on page 51 of Appellant’s Opening Brief, is a classic example approving “means” claims. It does not support claims which are indefinite and functional at the crucial point in a minor improvement.

Cutter Laboratories v. Lyophile-Cryochem Corp. (9 Cir.), 179 F. 2d 80, Briefs pages 51 and 55, in holding that “substantially instantaneous freezing” met the requirement of the patent statutes as to claim language, pointed out at page 87, that this phrase referred “not to a new inventive step but to the old, well known step of freezing as a condition necessary to the usefulness of the rest of the claimed combination.” The Court thus distinguished from *General Electric Co. v. Wabash*, *supra*, and *United Carbon Co. v. Binney and Smith*, *supra*, which it had followed in *Vitamin Technologists v. Wisconsin Alumni Research Foundation* (9 Cir.), 146 F. 2d 941.

The *Incandescent Lamp* case, 159 U. S. 465, Brief page 52, was properly relied on by the District Court,

as indicated previously in our Brief. Even if there are better cases supporting the District Court's decision, reliance upon that one cannot alter the correctness of such decision.

In *Snow v. Kellar-Thomason Co.* (9 Cir.), 241 Fed. 119, Appellant's Opening Brief, page 53, this Court distinguished the facts from those of the *Incandescent Lamp* case by pointing out that the generalized language being attacked in *Snow v. Kellar-Thomason* related to ingredients or the manner of compounding them which "have no place in the patent as an element; but any compound or primary element, if need be, having the property of cement, and which will cause substances to adhere, satisfies the requirement of the patent."

Halliburton v. Walker, 329 U. S. 1, over which Appellant attempts to distinguish the facts of the present case, Opening Brief page 54, nevertheless supports the general doctrine that a claim must be definite in defining the crucial element or the exact point of novelty. In the *Halliburton* case the patentee added an element to an old combination and should have particularized the new element; in our case, the patentee made one or more of the elements of an old combination "so shaped" that certain results or functions are said to follow. Whether the defect is in failing to adequately define an *added* element, or a *modified* element, is not actually material. Either falls under the condemnation of the law.

Faulkner v. Gibbs, 338 U. S. 267, is said by Appellant on page 55 of his Brief, to wholly dispose of the *Halliburton* case. *Faulkner v. Gibbs*, affirming this Court, ap-

proved “means” claims for inventions which constituted new combinations, as distinguished from additions to, or modifications of old elements in, old combinations. See this Court’s comment on the *Halliburton*, and *Faulkner*, cases, in *Cutter Laboratories v. Lyophile-Cryochem Corp.*, *supra*, 179 F. 2d at pages 90-91, which concludes: “Thus, we have a case in which the validity of the claims lies in ‘the fact of combination rather than the novelty of any particular element.’ *Faulkner v. Gibbs*, 338 U. S. 267, 70 S. Ct. 25.”

General Electric v. Wabash, 304 U. S. 364, discussed by Appellant on page 55 of its Brief, is analogous enough to our case to support the decision herein, as explained in an earlier portion of this Brief. The Parker claims, calling for old and well known parts to be “so shaped,” seek to cover more than Parker invented, if he invented anything. As Parker’s expert commented, these claims seek to cover a principle. It is axiomatic that a principle cannot be monopolized.

III.

The Parker Patent No. 2,212,183 as to All Three Claims Is Invalid Because the Original Application Was Forfeited and the Patent Issued Upon a Renewed Application Containing Additional Subject Matter.

The file wrapper [Defts. Ex. RR, reproduced R. 1427] shows that Parker secured allowance of one claim [R. 1451] and then failed to pay the final fee, allowing the case to become forfeited. He later renewed the application [R. 1453], retaining the one claim which became Claim 1 of the patent, and added Claims 2 and 3.

Claim 2 differs from Claim 1 by omitting reference to the striking of the free end of the sleeve head first at the outer end of the flare, and by adding the particular language directed to a sleeve head which is in contact with the nut at the large end but so shaped as to be out of contact at the free end.

Claim 3 combines features of Claims 1 and 2 and recites the free end of the sleeve head as contacting the flare first and also that the portion of the sleeve head contacting with the flared end of the tube is at all times out of contact with the coupling member. This is subject matter not identical to the subject matter of Claim 1. *It is additional matter.*

The applicable statute then in force, R. S. 4897 (now repealed) governed the practice. A claim to additional matter could not be inserted in the renewed application. It was not discretionary with the Patent Office, and the

Examiner made a mistake in allowing it. Under the statute, the patent is therefore void.

In re Kaisling, 44 F. 2d 863 (C. C. P. A., 1930).

This point was argued in the District Court but in view of the holding of validity the Court evidently deemed it unnecessary to pass upon the issue. We nevertheless feel that the argument should be considered if for any reason additional grounds for invalidity need be asserted.

This Court has power to affirm on a ground not assigned by the trial court.

Petersen v. Coast Cigarette Vendors, Inc. (9 Cir.), 131 F. 2d 389, 391, citing *McBrine Co. v. Silverman* (9 Cir.), 121 F. 2d 181.

Conclusion.

The mechanical devices involved are simple. Plaintiff-Appellant expanded the subject matter by extensive testimony, a great mass of exhibits, and broad conclusions lacking authenticity. To meet this, the Defendants-Appellees introduced substantial testimony and various exhibits based on accurate measurements and computations—not guess work.

The “sleeve head angle”, and the “differential angle”, asserted by Appellant to be the crux of the alleged invention, are not called for in the claims. Even if they are implied, these angles or their obvious equivalents are found in the prior art, and whatever insignificant changes were made by Parker do not constitute invention.

In view of the deficiency in the patent description, and the ambiguity and indefiniteness of the claims where they

rely upon the term “so shaped” followed by a functional statement, at the precise point of novelty (if there is any novelty), the entire patent is invalid because it does not comply with R. S. Section 4888, 35 U. S. C. 33.

Moreover, the entire patent is invalid as being for a different alleged invention than the original forfeited application.

Respectfully submitted,

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Los Angeles, California,
August 10, 1951.

In the
United States Court of Appeals
For the Ninth Circuit

THE PARKER APPLIANCE COMPANY,
Plaintiff-Appellant,

vs.

IRVIN W. MASTERS, INC.,
and

JOSEPH C. COLLINS, doing business as
COLLINS ENGINEERING CO.,
Defendants-Appellees.

} Appeal No. 12,848.

APPELLANT'S REPLY BRIEF.

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In the
United States Court of Appeals
For the Ninth Circuit

THE PARKER APPLIANCE COMPANY,
Plaintiff-Appellant,

vs.

IRVIN W. MASTERS, INC.,

and

JOSEPH C. COLLINS, doing business as
COLLINS ENGINEERING CO.,
Defendants-Appellees.

} Appeal No. 12,848.

APPELLANT'S REPLY BRIEF.

Introduction.

This brief is divided into three parts:

1. A statement of the controlling facts not challenged by Appellees.
2. Exposure of the errors made by Appellees with respect to the record evidence.
3. Discussion of the fallacies of Appellees' position, many of which find their source in the record errors.

PART I.

Appellees' Brief Does Not Challenge Numerous Controlling Facts Upon Which Appellant's Position Is Based.

The decisive undisputed facts are that:

1. The sleeve head angle (defined at pages 9-11, our main brief) was wholly new with Parker (our main brief, pp. 18-20).
2. The Armed Forces, after searching for a non-proprietary coupling, adopted the sleeve head angle in the revised AC-811 coupling (R. 1420) and in the AN coupling (R. 1416) (our main brief, pp. 26-28). This construction was, and still is, required on all military aircraft (our main brief, pp. 26-28).
3. The Parker differential angle (defined at pages 9, 12, our main brief), as distinguished from mere toe contact, is not shown in the prior art (our main brief, p. 20).
4. There is no prior art showing the combination of sleeve head angle and differential angle.
5. The 18½ degree "rework angle" was added to the size 2 to size 6 AC-811 and AN couplings after an accident investigation by Appellees' expert Adams showed this to be necessary (our main brief, p. 28). This "rework angle" provides an initial angle between the outside of the tubing flare and the inside of the toe end of the sleeve which is the differential angle (compare Charts 2, 5, and 7, our main brief).
6. The District Court merely made the generalized observation in its opinion that the Parker changes do not "justify a monopoly" (R. 77). Even the findings, prepared by counsel for Appellees, include only an unexplained list of sixteen patents and publications without suggestion as to how any show either the sleeve head angle or the differential angle (R. 82).
7. There is no evidence challenging the patent Examiner's finding that the Parker patent is a sufficient disclosure and that the claims cover no more than Parker's invention (our main brief, pp. 43-47).

8. Three-piece couplings were known prior to the Parker patent here-in-suit. Parker's changes over the art lie in the rearrangement of these elements, as distinguished from the addition of a new element to a known combination, as occurred in *Halliburton v. Walker*, 329 U. S. 1 (1946) (our main brief, pp. 54-55).

We list these controlling facts because Appellees parrot the rule, recognized in our main brief, that findings of fact cannot be reversed unless clearly erroneous (*i. e.*, Appellees' brief, pp. 6-9). Aside from these undisputed facts, the whole point on this appeal is that the District Court made findings and arrived at conclusions that are wholly unsupported by evidence. This is exactly the kind of error that this Court is intended to rectify and should rectify. Appellees ask this Court to rubber stamp the decision below—something this Court does not and should not do.

PART II.

Appellees Take Liberties With the Record. The Variance Is Especially Great in Connection With the Most Significant Aspects of This Case.

The brief filed by Appellees abounds in statements of fact without record reference, in violation of rule 20-2(f) of this Court. It also contains numerous record references which wholly fail to support the statements of the brief.

Any argument can be made convincing by substituting an advocate's choice of unproven facts for the record evidence.

As a specific illustration of the unsupported statements in Appellees' brief, we here dissect the two top paragraphs of page 21 which, because they purport to challenge the commercial importance of the differential angle, are exceedingly important to the disposition of this case.

Beginning with the first full sentence, page 21, we read:

“* * * With respect to the practice of the Lockheed Aircraft Company the presence of a differential angle is not important (R. 671). * * *”

Reference to this page of the record shows that it contains no such testimony and that the only mention of Lockheed is that “they use, **all the time**, AN type flares, 10061, and the **AN 819** sleeves,” although nuts and bodies are interchanged.* Use of the AN type sleeves means that, in the size 6 and smaller, the differential angle is used (our main brief, p. 28 and R. 1416). Incidentally, the AN 819 sleeves include the sleeve head angle (R. 1416).

Continuing at page 21 of Appellees' brief:

“* * * On the world-famous Constellations manufactured by the Lockheed Aircraft Company and the P-38 fighter plane a combination fitting was employed utilizing nut, sleeve, and body as depicted in Exhibit R. The inside sleeve angle as there shown exclusive of the $18\frac{1}{2}^{\circ}$ rework angle flares out in a direction which makes toe contact impossible and hence no differential angle exists or is employed.”

As pointed out above, Lockheed **always** uses AN sleeves so as to secure their advantages, including the differential angle in sizes 2 to 6 and the sleeve head angle in all sizes. Appellees' Exhibit R (significantly not in the printed record) shows such a size 6 coupling with the $18\frac{1}{2}^{\circ}$ “rework angle” and hence the differential angle, contrary to Appellees' representation above.

The second paragraph at page 21 of Appellees' brief reads:

“The differential angle was unimportant to the Douglas Aircraft Company. They used AC-811 fittings, an assembly of which is illustrated in Exhibit Q. The angle at the inside of the sleeve head flare

* Emphasis ours throughout.

is greater than the angle on the exterior of the flare on the tubing so that there can be no toe contact. Some 50,000 airplanes produced by North American Aviation Corp. were manufactured and operated successfully with fittings of that description (R. 703-704).

* * *

The facts are that Douglas, like the other aircraft companies, now uses the AN couplings (R. 793). Appellees' own expert Adams testified that they even use these couplings to replace the earlier type couplings originally installed on the DC-3 planes (R. 790-793). Adams also testified that he would not recommend that Douglas return to the earlier couplings, which did not include either the sleeve head angle or differential angle (R. 798).

Exhibit Q (not in the printed record) shows a size 8 coupling. This size never has the differential angle (our main brief, p. 57). Douglas always uses a differential angle in sizes 2-6. The reference to Exhibit Q in the above quotation is therefore misleading.

The fact further is that the 50,000 airplanes made by North American between 1936 and 1943 used the AC-811 coupling as Appellees' witness Bumb testified (R. 703-704). The sleeves of AC-811 fittings were modified by 1940 to include the sleeve head angle and the differential angle in sizes of size 6 and below (our main brief, p. 27; R. 1420).

These erroneous statements are repeated in substance at page 29 of the brief.

We here set forth in tabular form additional selected errors:

APPELLEES ASSERT.

"The fitting was to be a non-proprietary fitting (three piece fitting) so as to be available to all users from many sources (R. 563, 651)." Page 2, line 8, Appellees' Brief.

"The newly adopted fitting was designated the Army-Navy Standard Three-Piece Fitting or AN Standard. Other acceptable fittings include the AC811 three-piece fitting and the AN817 two-piece fitting." Page 2, line 10, Appellees' Brief.

"Commercial aircraft manufacturers as a matter of expediency have also turned to a large extent to the AN Std. fittings." Page 2, line 17, Appellees' Brief.

"The witness (Wolfram) further pointed out that in the patent and to follow the patent teaching it is necessary to have radial contact at least at the large end of the sleeve head." Page 11, line 6, Appellees' Brief.

THE FACT IS.

The Government always desires non-proprietary equipment (R. 582). Nevertheless, a patented fitting was chosen (our main brief, p. 27). The record, page 651, referred to, is Masters' testimony that Parker originated the sleeve head angle.

The AC811, since 1940 has included the sleeve head angle in all sizes and the differential angle in sizes of 6 and below (R. 1420). The AN and revised AC811 fittings have wholly replaced all two-piece fittings, except in special cases (R. 1220-1221).

There is no record reference for this statement. As a matter of fact, Adams, Chief Engineer, for Douglas, does not recommend that Douglas go back to the old fittings on its own planes (R. 798).

Wolfram testified that the statement "* * * they will contact only in the region of the clamping shoulder * * *" which only appears in Claim 2, means that there must be means for limiting radial expansion in the large end of the sleeve head (R. 416).

APPELLEES ASSERT.

"This company (North American) actually prefers the flareless fitting (R. 705)." Page 21, line 23, Appellees' Brief.

"As has been pointed out in various portions of the evidence, the strength and judgment of the mechanic in exercising torque for making the fitting will be the determining factor in whether or not a fitting fits the claims (R. 585)." Page 28, line 26, Appellees' Brief.

"Although toe contact is claimed to make the amount of nut turning less critical, Exhibit 28Q, there is no toe contact in the AN Std. fitting, Exhibit O." Page 35, line 15, Appellees' Brief.

"If AN Std. fittings is synonymous with 'Parker fittings' or 'Parker couplings' (App. Op. Br. 27), then the Parker fitting is in the public domain because Parker used the same sleeve clearance and differential angle on February 18, 1935 (Ex. KK), and that was called a Parker type fitting." Page 35, line 31, Appellees' Brief.

THE FACT IS.

The witness Bumb of North American stated (R. 705) that he isn't sure the flareless fitting is better and for some purposes that it is not as good as the AN fitting.

There is testimony (R. 585) relating to the judgment of a mechanic in making up a fitting but no testimony that his judgment determines whether or not a fitting satisfies the claim. In fact, one advantage of the Parker fitting is that it is less sensitive to adjustment than the prior fittings (R. 798; our main brief, pp. 34-39).

Of course not, Exhibit O (not in the printed record) is a size 8 fitting which does not have the differential angle and is not claimed to have such angle. Differential angle is found in sleeve sizes 6 and lower.

The fact that fittings made without the two angles in question were called Parker type fittings in 1935 does not put the present day fittings in the public domain. The Parker type fittings of 1935 did not use the two angles present in the Parker type fittings after 1940. The Parker type fitting of 1935 did not include the two features found in the Parker patent and now used by the Appellees.

The Charts Appended to Appellees' Brief Are Not in Evidence and Are Inconsistent With the Record Evidence.

If the charts used by Appellees were exhibits, or photographic reproductions of exhibits, we would not object to them. Actually, they are sketches, made by some unknown artist, to buttress Appellees' arguments with an aura of authenticity. No witness has testified to the accuracy of the charts; no identification of their source has been made; no opportunity has been given to cross-examine as to them.

Space limitations preclude detailing the numerous liberties taken by Appellees. We merely discuss by way of example the grosser errors of Sheet No. 1.

Sheet 1, diagram E, shows a space "A" almost as large as the space "C". The fact is that Appellees' Exhibit O and Appellant's Exhibit 48 both accurately show the AN coupling in which the space A is minute as compared to the space C. In other words, the sleeve head angle is a major aspect of the construction and not a minor detail as shown in diagram E. The actual exhibits tell the true story in accordance with the facts. The presently reconstructed diagram E of Sheet 1 of Appellees' brief tells a distorted story. Why didn't the Appellees reproduce the **actual exhibit drawings**?

Sheet 1, diagram G, is an illustration, based on an assumed set of facts, of a physical device made by Appellees for the purpose of the trial (R. 610). It shows contact between the toe end of the sleeve and the inside of the nut. This abnormal situation is not in accord with present couplings as testified to by Masters (R. 682). Yet diagram G shows contact. Again Appellees endeavor to make a point from an abnormal assumed situation of a single physical device **made for the trial** and forget the millions of normal fittings that do not touch (R. 682).

PART III.

Invention Cannot Be Overcome by Confusing the Sleeve Head Angle With Clearance.

Appellees repeatedly characterize the sleeve head angle as mere "clearance" (*i. e.*, p. 14). This is a patent effort to overcome facts by misnomers. We agree that along with the sleeve head angle there must be some clearance. Such characterization gives no clue as to the presence or absence of invention.

Appellees declare that:

"A clearance is just as good as a sleeve head angle."
(Appellees' brief, p. 29.)

The fact is that no witness testified to this effect. **Not one of the six page references in Appellees' brief support this statement.** The actual fittings involved do have a sleeve head angle. The engineers of large aircraft manufacturers want it (*i. e.*, R. 798).

Appellees point out (p. 16) that the art used clearances long prior to Parker. This is a fact. The point is that no one thought of a sleeve head angle. Parker described it in his patent. The industry has adopted it to the exclusion of the prior art (our main brief, pp. 23-6). Counsel for Appellees admitted the sleeve head angle to be new (R. 458, our main brief, p. 20).

As pointed out in our main brief (pp. 33-37), the sleeve head angle gives rise to numerous advantages that cannot be achieved by mere clearance. Numerous witnesses testified to these advantages and their importance (R. 876-7, R. 1149-50, R. 1198-1200). Appellees assume that sleeve head angle and clearance are the same and thus one is as good as the other. The assumption is contrary to the fact. Appellees' self-serving statement is equally wrong.

Parker made an invention, and a valued one. It cannot

be obscured by assuming that sleeve head angle and clearance are the same.

Appellees Cannot Obliterate the Presence of the Sleeve Head Angle by Arguing the Irrelevant Question of the Degree of Radial Contact Between Sleeve Head and Clamping Nut.

Section I of Appellees' brief places heavy emphasis upon the purported proofs that the sleeve head does not have actual radial contact with the clamping nut.* This is a wholly false issue. The sleeve head angle is present in the fitting whether or not there is actual contact in any specific instance.

Chart 2 of our main brief (page 9) identifies the sleeve head angle. While in the specific patent structure the shoulder part of the sleeve (red) actually is in radial contact with the clamp nut (green), the angle is present regardless of contact. In fact, Parker only sought a coupling wherein the sleeve head "is so shaped as to be free from radial contact with the outer sleeve when the coupling members are in firm gripping contact with said flared end of the tube" (patent—col. 1, line 30, R. 1325).

Later, in the patent specification, Parker states:

"* * * In other words, the inner flare surface of the sleeve will yieldingly clamp the flared tube end while unlimited expansion of that portion of the head adjacent the clamping shoulder will be prevented" (patent—col. 1, line 43, R. 1326).

The claims are consistent with the specification. Claim 2 only requires that **when and if** contact is made, such contact be at the shoulder end of the sleeve head (R. 1326).

* This discussion really goes to the question of infringement. We do not object to consideration of the matter at this stage of the proceeding. It should not be overlooked, however, that Judge Westover never passed on this issue, and there is no presumption, one way or the other, from his decision.

Claim 3 states that the toe, or tube contacting parts of the sleeve head, be out of contact with the clamping nut (R. 1326).

Appellees are incorrect in representing that our position is based on actual contact (page 17, line 9).

The Parker specifications and claims (pointedly ignored in Appellees' brief) make it perfectly evident that the gist of the sleeve head angle lies in the concept of greater sleeve head flexure at the toe end than at the shoulder end, with unlimited shoulder expansion restrained. This gives rise to the advantages described in our main brief (pp. 33-37). It is embodied in the revised AC-811 sleeve by the $1\frac{1}{2}$ degree sleeve head taper shown in the central top drawing of page 1420 of the record. It is likewise embodied in the AN sleeve by a like angle of 1 degree (R. 1416).

Moreover, the contentions as to the shoulder contact under certain conditions do not alter the fact that it is always possible and does occur under certain conditions and when it does occur it prevents unlimited shoulder expansion. The contact is like a safety valve—preventing unlimited expansion when called upon to do so and not otherwise.

The Record is replete with instances of actual shoulder contact. The drawings, Appellees' Exhibit O* and Appellant's Exhibit 48 (R. 1380) show a very small radial shoulder spacing for the finger tight condition that inherently results in a prompt actual contact when the coupling is tightened. The photograph, Appellant's Exhibit 78 (R. 1409) also shows contact. The witnesses, Murphy (R. 865), Middleton (R. 901), and Wolfram (R. 462-463), testified that contact in fact occurs.

Parker limited the expansion of the sleeve head at the shoulder and at the same time provided for hoop tension

* Not in printed record but referred to in Sheet No. 1, Appellees' brief.

expansion at the toe end. The sleeve head angle eliminates the freezing of the sleeve to the nut (our main brief, pp. 34-6).

The Differential Angle of the Parker Patent Finds Full Response in the $18\frac{1}{2}$ Degree "Rework Angle" of the Size 2 to Size 6 AN and AC-811 Couplings.

There is no mystery about the term "differential angle." It is fully identified, with reference to the patent drawings, at pages 9 to 12 of our main brief.

There is accordingly no excuse for the irrelevant Sheet 2 and accompanying discussion of Appellees' brief which confuses differential angle with the taper of the tubing flare. Moreover, the coupling shown in Diagram E of that chart (Appellees' Exhibit O—significantly omitted from the printed record) is a size 8 coupling as can be verified from the actual exhibit. This size does not have the $18\frac{1}{2}$ degree "rework angle" and hence does not have the differential angle. It is not now, and never has been, accused as an infringement of the differential angle feature found only in claims 1 and 3 of the Parker patent. Claim 2 relates only to the sleeve head angle.

This again goes to the matter of infringement, and not validity.

Patent 1,977,241, Upon Which Appellees Belatedly Rely, Was Not Considered Pertinent by the District Court; Was Found Inapplicable by the Patent Examiner; and Does Not Show a Usable Structure.

We are amazed to find that at this late stage Appellees have discarded the sixteen patents listed in the Findings of Fact by Judge Westover (Finding IX, R. 82) and now place major reliance on Parker patent 1,977,241 (Brief, pp. 18-19, Chart 2, Diagram B). Appellees did not even re-

quest inclusion of this patent in the printed record and did not ask that it be included with the patents listed.

The simple answer to patent 1,977,241 is that it shows the mere idea of initial toe contact—not the differential angle. In the 1,977,241 patent the sleeve is cut away at the toe end to make it flex when tightened (R. 911). In the patent here-in-suit, exactly the opposite occurs for the flare deforms more than the toe bends (our main brief, pp. 37-38, Appellant's Exhibit 78, R. 1409). Even Adams admitted that the 1,977,241 patent "doesn't show a construction that * * * would be very satisfactory" (R. 729).

The digging or flare deforming action of the sleeve arising from the differential angle is rather well shown in Appellant's Exhibit 78 (R. 1409). This photograph was taken by Appellees' expert Adams for an engineering report **unconnected with and prior to this suit** (R. 713, 822). It constitutes convincing evidence that the differential angle advantages are used in the AN and AC-811 couplings. Its effect cannot be avoided by applying the legend "Expansion does not convert the $18\frac{1}{2}^{\circ}$ portion to area contact" or by taking liberties in sketching the photograph, as is done in Sheet No. 3, Diagram B. Again the legend goes to the matter of infringement. The legend is also contradicted by Adams (R. 802) and Davies (R. 1067-1068).

The witness Wolfram actually built a number of couplings like that of the 1,977,241 patent and found that Adams was right. The couplings failed when tightened (R. 907-911).

The patent Examiner cited the 1,977,241 patent in connection with the Parker patent here-in-suit. After fully considering this prior art patent, he decided that his original reliance was error and allowed the claims now in the patent.

It is well settled that the presumption of patent validity is particularly strong where the prior art relied upon was before the Examiner. See, as typical, *Bianchi v. Barili*, 168 F. (2d) 793, 796 (C. A. 9, 1948). It is equally well settled that a prior art reference to a structure that made no impact on the industry, and is not practical, is of slight effect. See, for example, *Wahl Clipper Co. v. Andis Clipper Co.*, 66 F. (2d) 162, 165 (C. A. 7, 1933).

Judge Westover was right when he rejected the 1,977,241 patent as a basis for his decision.

The Sleeve Head and Differential Angles Make Possible a Coupling That Has Displaced All Others for Aircraft Applications. This Is Not a "Minor" Matter.

At pages 31-34, Appellees discuss a number of cases in support of the generality that "minor changes and perfection of workmanship" are not patentable. Not one of the cases cited is like the present case where the art had long experimented in quest of an improved coupling; adopted the new coupling to the exclusion of others after its invention; and has not since replaced it. In a field of application, such as aircraft, where the coupling protects the lives of our servicemen as well as passengers in aircraft, this accomplishment cannot be minimized by calling it minor or trivial. It is vital and all-important in court as well as in practice (See our main brief, pp. 38-40).

The Patent Law Does Not Require That Dimensions Be Specified in Particular Units of Measurement. The Sole Requirement Is That the Invention Be Disclosed to Those Skilled in the Art.

Appellees emphasize, and re-emphasize, the failure of the Parker patent to state, **in degrees**, the size of the sleeve head angle and the differential angle (note espe-

cially pp. 43-47). The substance of the argument is that a patent is invalid which does not specify, **in degrees**, every angle, regardless of how well the principle of the invention is expressed and how correctly the drawings show the embodiment of that principle in an exemplary structure.

Section 4888 R. S. (35 U. S. C. 33) is crystal clear that the description need only be "in such full, clear, concise and exact terms as to enable any person skilled in the art * * * to make, construct, or compound, and use the same * * *." This requirement is met just as well by a full description of the Parker principles (which Appellees do not deny exists) and a drawing from which the angles can be measured if desired, as by an encyclopedic listing of all the possible angles, in degrees, that might be used.

Wolfram was absolutely correct in stating that there is no difficulty making a Parker coupling from the patent once the principle is brought to light by reading the patent (R. 440). His testimony on this point stands unchallenged.

Appellees cite no authority for their absurdly technical contention. There is none. *Smith v. Snow*, 294 U. S. 1, 11 (1935) (our main brief, p. 48), is illustrative of the numerous cases that have refused to demand a detailed listing of every dimension, angle, temperature, etc., in terms of a particular unit of measure.

It is particularly significant that Appellees have introduced no testimony, and do not in their brief suggest, that the one degree sleeve head angle of the AN specifications (R. 1416) or the $1\frac{1}{2}$ degree sleeve head angle of the modern AC-811 coupling (R. 1420) differ in principle from the sleeve head angle shown by the Parker patent-in-suit.

Wolfram Testified That the Parker Coupling Could Be Made Either by Engineering Design or by Experiment. No Witness Testified That Experimentation Is Required.

The finding that no one could produce a coupling embodying the Parker features “without experimentation” (Finding XII, R. 84) is a cornerstone of the decision below. Appellees, recognizing this fact, devote a major portion of their brief to the testimony of Wolfram which they represent to support this finding (*i. e.*, pp. 23, 43-49).

Despite the prolonged and repetitive questioning on the point, Wolfram was steadfast in his testimony that:

1. The dimensions required to effect the sleeve head and differential angle vary from coupling to coupling and

2. That, following the principles set forth in the patent, these features can be achieved in any practical coupling by (a) **drawing board design** or (b) experimentation, whichever route the designer prefers.

In Wolfram's words, “the specific angle could probably best be determined by straightforward engineering analysis, or else experiment, **either one**” (R. 440).

Wolfram listed experimentation as one way to design a coupling. The District Court, relying on representations such as those in Appellees' brief, squarely held that it was the **only** way (Finding XII, R. 84). This is clear error.

The Patent Examiner Correctly Found That the Parker Claim Language Meets the Statute and the Decisions.

Despite the extent of the argument on claim language (pp. 37-64), Appellees point to no place in the record where there is testimony, or even an inference, that the Parker claims cover something more than or different

from that which Parker contributed to the art. Likewise, there is no suggestion of any evidence that one skilled in the art would have the slightest difficulty determining, from the claims read in the light of the specification, whether there is or is not infringement.

Appellees' argument necessarily fails because it is not supported by the record.

The authorities, including those cited by Appellees, fully support this basic requirement. For example, in *Research Products v. Tretolite Co.*, 106 F. (2d) 530, 533 (1939), cited in Appellees' brief, pp. 50 and 54, this Court declared:

"The question is as to whether or not these descriptions of the chemical agent to be used in the process are sufficiently clear and definite to be understood and applied by those engaged in the art of organic chemistry as applied to petroleum recovery (citing cases).
* * *

"This question is one of fact to be ascertained by the evidence of experts, *Toledo Rex Spray Co. v. California Spray Co.*, 6 Cir., 268 F. 201, 204. * * *.

"We conclude that the finding of the court and special master as to the meaning of the patent is sustained by the testimony of credible experts appearing before the special master and that the finding should not be disturbed in so far as it is drawn in question here. If it is indefinite in some respects due to the comprehensive character of the invention and of the claims therefor, it is not uncertain in the area of description involved in this action. Any vagueness in these outlying boundaries of the description does not invalidate the patent as to that which is clearly defined. *Carnegie Steel Co. v. Cambria Iron Co.*, 185 U. S. 403; *Faultless Rubber Co. v. Star Rubber Co.*, 6 Cir., 202 F. 927."

In *Schumacher v. Buttonlath Mfg. Co.*, 292 Fed. 522, 532 (C. A. 9, 1920), the Court squarely rejected a defense of insufficiency of a patent disclosure because it was not sup-

ported by sufficient testimony. In the present case there is no testimony and the rule is doubly applicable.

The patent Examiner passed the Parker patent and in so doing approved the claim and specification language. Contrary to Appellees' contention (brief, p. 57) this is entitled to great weight. The authorities are unanimous that the presumption of correctness attends the Examiner's findings on all the requirements of a valid patent (our main brief, pp. 43-45). See also *Bank v. Rauland Corp.*, 146 F. (2d) 19, 23 (C. A. 7, 1944) (Appellees' brief, p. 50) where the Court stated:

"It is quite true that the Commissioner of Patents held the claims **sufficiently specific** and issued the patent. That ruling resulted in creating a presumption of validity of the claims * * *."

While the Court there found evidence to overcome the presumption, it is perfectly clear from the decision that the defense must be supported by evidence. That evidence is not in the present record.

None of the cases cited by Appellees (pp. 37-42; 56-63) justify reversal of the Examiner's finding that the Parker claims are proper.

Merrill v. Yeomans, 94 U. S. 568 (1877) (brief, p. 38), *Bates v. Coe*, 98 U. S. 31 (1878) (p. 38), *Permutit v. Graver*, 284 U. S. 52 (1931) (p. 38), all merely express the generality that claims must be clear. They in no way suggest that Parker's claims do not meet the statute.

As pointed out in our main brief (pp. 52-53) the *Incan-descent Lamp* case, 159 U. S. 465 (1895) (brief, p. 38), involved a situation where the claims covered **all** filaments and the inventors contributed only one. In *Holland Furniture v. Perkins*, 277 U. S. 245 (1928) (brief, p. 38), the patentee made one glue and sought to monopolize all glues, including those that he did not invent. In *United Carbon*

v. *Binney & Smith*, 317 U. S. 228 (1942) (Appellees' brief, pp. 39, 40, 56, 61) the patentee claimed **all** carbon black of a particular kind when he had invented only **one** carbon black of that kind.

General Electric v. Wabash, 304 U. S. 371 (1938) (Appellees' brief, pp. 40, 41, 42, 53, 56, 61, 63) involved claims to **all** non-sagging filaments when the patentee invented only one.

Halliburton v. Walker, 329 U. S. 1 (1946), is fully distinguished in our main brief (pp. 54-55).

Metals Recovery v. Anaconda, 31 F. (2d) 100 (C. A. 9, 1929) (Appellees' brief, p. 53), is another case where the claim very clearly covered more than was invented.

Research v. Tretolite, 106 F. (2d) 530 (C. A. 9, 1939) (Appellees' brief, p. 54) involved claims that, like Parker's, covered only the invention and hence were held valid.

In *Farmers Cooperative v. Turnbow*, 111 F. (2d) 728 (C. A. 9, 1940) (Appellees' brief, p. 55), the patentee claimed **all** parasiticides capable of use but invented only one. *Corona v. Dovan*, 276 U. S. 358, 385 (1928) involved claims covering some 100 chemicals whereas the patentee invented only one. The claims were accordingly invalid.

In the present case there is no evidence, and not even an assertion in Appellees' brief, that the Parker claims cover more than he invented. No such contention can be made for the claims merely cover the sleeve head angle and the differential angle, and no more. Both features were new with Parker and Appellees now pay their respect to the Parker patent by manufacture and sale of fittings embodying those features. Here in Court, Appellees contend that those features are unimportant.

The Renewal Statute, and Decisions Thereunder, Fully Supports the Parker Patent. Appellees' Interpretation of *In re Kaisling* Has Been Repudiated.

It is sufficient in answer to the contentions based on *In re Kaisling*, 44 F. (2d) 863 (C. C. P. A., 1930) (Appellees' brief, pp. 64-5), to point out that the same court, four years later, squarely refused to interpret the decision as done by Appellees. In the later case, *Doherty v. Dubbs*, 68 F. (2d) 373 (C. C. P. A., 1934), the court very specifically held that additional claims could be added upon renewal. Since Parker merely added claims (and Appellees so admit, p. 64) there can be no doubt that the *Doherty* case, not the *Kaisling* case, controls.

Judge Westover was right in excluding this point as a basis for decision.

Conclusion.

“* * * Patents often lend themselves to fine-spun theories; but it is singular how plain they are, if they are worth anything, to the man who wishes to infringe for profit.”

Judge Hough in
General Electric v. Mallory,
298 Fed. 579, 588 (C. A. 2, 1924).

The decision below should be reversed with directions to enter judgment for Plaintiff-Appellant.

Respectfully submitted,

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Of Counsel:

CHARLES G. LYON,
WILL FREEMAN,
W. M. VAN SCIVER,
GEORGE E. FROST.

August 23, 1951.

No. 12854

United States
Court of Appeals
for the Ninth Circuit.

In the Matter of

WILLIAM B. MURRAY,

Appellant.

Transcript of Record

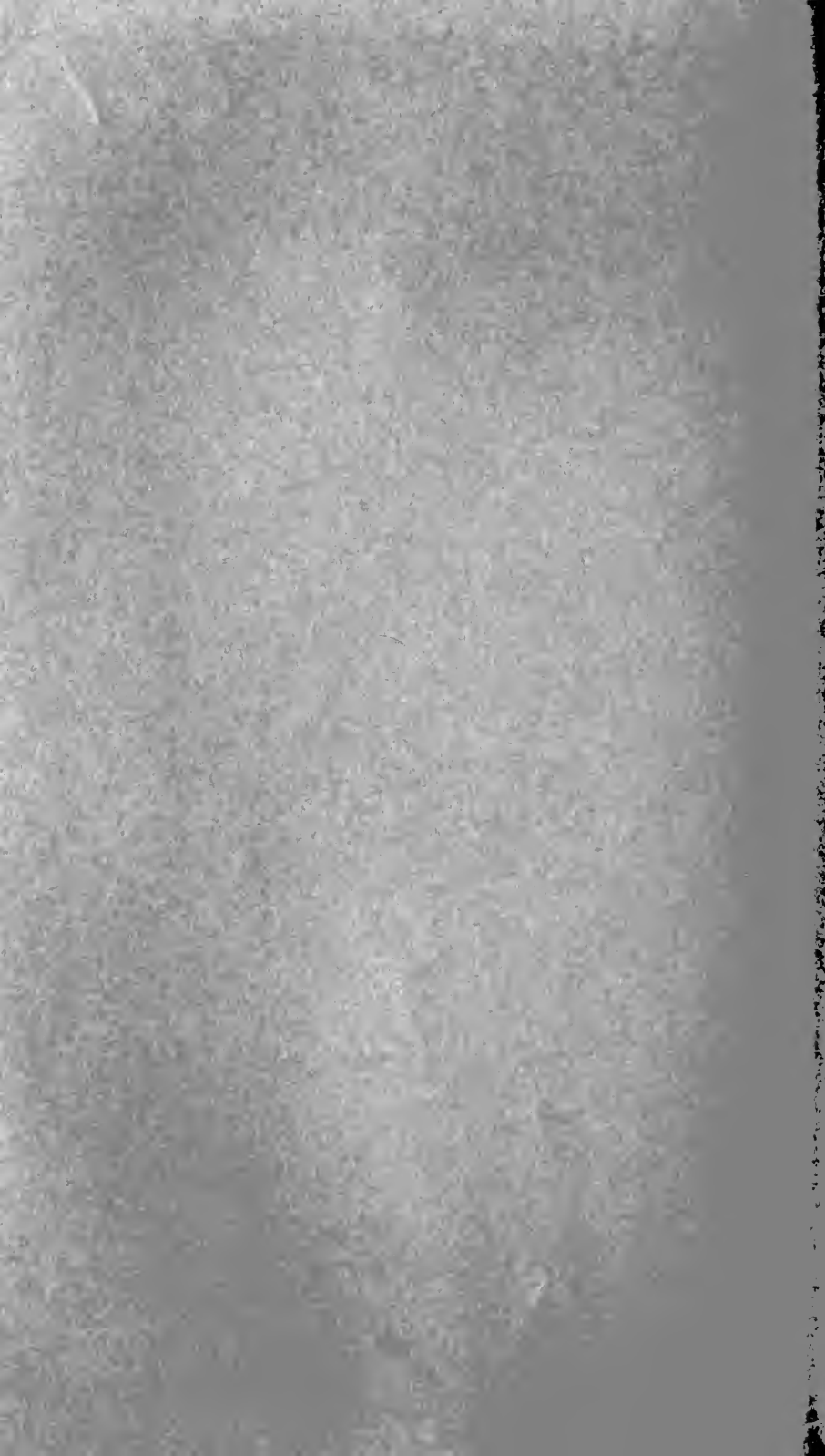
Appeal from the United States District Court
for the District of Oregon.

FILED

MAY 29 1951

PAUL F. O'BRIEN,

CLERK



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[Clerk's Note: When deemed likely to be of an important nature, errors or doubtful matters appearing in the original certified record are printed literally in *italic*; and, likewise, cancelled matter appearing in the original certified record is printed and cancelled herein accordingly. When possible, an omission from the text is indicated by printing in *italic* the two words between which the omission seems to occur.]

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NAME AND ADDRESS OF ATTORNEY

WILLIAM B. MURRAY,

525 Failing Building,

Portland 4, Oregon,

Attorney for Appellant.



In the United States District Court for the
District of Oregon

Civil 5677

ADDISON G. HALL,

Plaintiff,

vs.

HENRY GARDNER,

Defendant.

DOCKET ENTRIES

1950

June 29—Filed complaint.

June 29—Issued summons to marshal.

July 12—Filed summons with marshal's return.

Aug. 14—Filed answer.

Sept. 6—Entered order setting for pre-trial conference on Sept. 14, 1950. McC.

Oct. 24—Entered order setting for pre-trial conference on Oct. 30, 1950. McC.

Oct. 27—Entered order setting for pre-trial conference on Nov. 6, 1950. McC.

Nov. 6—Record of pre-trial conference. McC.

Nov. 14—Entered order setting for trial on November 30, 1950, 10 a.m. McC.

Nov. 27—Issued subpoena & 3 copies to atty. for plaintiff.

Nov. 30—Record of trial before court & order reserving defts motion to dismiss. McC.

Dec. 1—Record of trial before court & order reserving defts motion to dismiss (renewed) arguments & order reserving decision. McC.

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- Dec. 5—Filed memorandum of decision. McC.
Dec. 9—Filed stipulation for order to withdraw exhibits.
Dec. 9—Filed & entered order to withdraw exhibits. McC.
Dec. 11—Entered order setting for hearing on atty. fees on Dec. 18, 1950, 10 a.m. McC.
Dec. 16—Entered order resetting for hearing on atty. fees on Dec. 22, 1950, 10 a.m. McC.
Dec. 29—Filed & entered Findings of Fact & Conclusions of Law. McC.
Dec. 29—Filed & entered Judgment. McC.
Dec. 29—Entered two separate judgments in Lien Docket.

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- Jan. 6—Entered two amended judgments in Lien Docket.
Jan. 4—Filed stipulation re attorney fees.
Jan. 4—Filed motion for order vacating judgment of Dec. 29, 1950.
Jan. 4—Filed & entered order vacating judgment of Dec. 29, 1950. McC.
Jan. 4—Filed & entered Judgment order (amended). McC.
Jan. 15—Filed cost bill of plntf. (Costs taxed at \$79.66.)
Jan. 15—Filed praecipe for execution.
Jan. 16—Issued execution—to marshal.
Jan. 16—Filed plaintiff's motion for warrant of arrest and affidavits.

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- Jan. 16—Filed & entered order for issuance of warrant of arrest. Fee.
- Jan. 16—Issued warrant of arrest to marshal.
- Jan. 17—Record of hearing & order fixing bond at \$9,000.00 & committing deft. in default of bond. Fee.
- Jan. 17—Issued commitment in default of bail to marshal.
- Jan. 22—Filed warrant of arrest—Henry Gardner in custody of U. S. Marshal.
- Jan. 23—Filed Commitment in default of bail, with marshal's return.
- Jan. 23—Filed transcript of proceedings Nov. 30—Dec. 1, 1950.
- Jan. 23—Filed excerpts from proceedings Jan. 22, 1951.
- Jan. 22—Record of hearing in contempt proceedings against Wm. B. Murray, Atty. for deft. order finding in contempt, order dismissing contempt proceedings after restitution & order referring to discipline Committee of Bar of this Court. Fee.
- Jan. 24—Filed defendant's motion for release from custody, to quash order for commitment, order for arrest, order to give bail, order to impound fund, order for deft's. atty. to return funds & for an order allowing attorney fees.
- Jan. 24—Filed defendant's brief.
- Jan. 24—Filed plaintiff's motion for examination of judgment debtor.

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- Jan. 24—Filed plaintiff's motion to apply monies to satisfaction of judgment.
- Jan. 25—Filed order fixing bond & for commitment. Fee.
- Jan. 24—Entered order denying defendant's motion for release from custody, etc. Fee.
- Jan. 25—Record of hearing.
- Jan. 26—Filed motion of defendant for release from custody.
- Jan. 26—Filed & entered order releasing defendant from custody & restraining deft. from leaving jurisdiction. Fee.
- Jan. 26—Entered order allowing Wm. B. Murray to withdraw as counsel for defendant.
- Jan. 31—Filed notice of appeal of Wm. B. Murray from charge of contempt.
- Jan. 31—Filed bond on appeal.
- Feb. 5—Filed points on which appellant will rely.
- Feb. 5—Filed designation of contents of record on appeal.
- Feb. 5—Filed transcript of proceedings Jan. 16-17-22-24-25-26, 1951.
- Feb. 6—Filed order denying defendant's motion for release from custody, etc. Fee.
- Feb. 7—Filed transcript of proceedings Jan. 16, 1951.
- Feb. 8—Filed affidavit of service of points on which appellant will rely, etc.

[Title of District Court and Cause.]

(Amended)

JUDGMENT ORDER

The above-entitled cause having come on regularly for trial on November 30, 1950, and December 1, 1950, plaintiff appearing in person and by and through William M. Dale, Jr., of his attorneys, and defendant appearing in person and by and through George C. Reinmiller and Marshall Hjelte, of his attorneys, and the Court having heard the testimony and having examined and considered the evidence offered by both parties, together with the agreed facts as set forth in the pre-trial order herein, and the cause having been submitted to the Court for decision, and the Court being fully advised in the premises and having made and caused to be filed herein its Findings of Fact and Conclusions of Law; now therefore

It Is Hereby Ordered, Adjudged and Decreed:

(1) Judgment is entered in favor of the plaintiff and against the defendant in the sum of \$6,775, with interest at the rate of 5% per annum on the sum of \$7,000, from March 25, 1949, to and until December 19, 1949, and at the same rate of interest on the sum of \$6,900, from December 20, 1949, to and until August 29, 1950, and at the same rate of interest on the sum of \$6,850, from August 30, 1950, to and until September 10, 1950, and at the same rate of interest on the sum of \$6,800 from September 11, 1950, to and until October 20, 1950, and at the same

rate of interest on the sum of \$6,775, from October 21, 1950, until paid, together with the sum of \$900 on account of plaintiff's attorneys' fees and with costs to be taxed.

(2) Judgment is entered in favor of defendant on his first counter-claim against plaintiff in the sum of \$225.00.

(3) The second counter-claim of defendant against plaintiff is hereby dismissed with prejudice and without costs.

(4) The third counter-claim of defendant against plaintiff is hereby dismissed with prejudice and without costs.

(5) Prior Judgment entered herein on December 9, 1950, be, and the same is hereby vacated and set aside.

Dated and Entered this 4th day of January, 1951.

/s/ CLAUDE C. McCOLLOCH,

U. S. District Judge.

[Endorsed]: Filed Jan. 4, 1951.

District Court of the United States,
District of Oregon

Civil 5677

ADDISON G. HALL,

Plaintiff,

vs.

HENRY GARDNER,

Defendant.

EXECUTION

The President of the United States of America
To the United States Marshal of the District of
Oregon, or to his Deputy—Greeting:

Whereas, on the 4th day of January, A.D. 1951, by order of the District Court of the United States for the District of Oregon, in an action then pending in said Court, Addison G. Hall recovered a judgment against Henry Gardner, for the sum of Six Thousand Seven Hundred Seventy-five (\$6,775.00) Dollars, with interest thereon at the rate of 5 per cent per annum on the sum of \$7,000, from March 25, 1949, to and until December 19, 1949, and at the same rate of interest on the sum of \$6,900, from December 20, 1949, to and until August 29, 1950, and at the same rate of interest on the sum of \$6,850, from August 30, 1950, to and until September 10, 1950, and at the same rate of interest on the sum of \$6,800, from September 11, 1950, to and until October 20, 1950, and at the same rate of interest on the sum of \$6,775, from October 21, 1950, until

paid, together with the sum of \$900 on account of plaintiff's attorney's fees, and for the further sum of Seventy-nine and 66/100 (\$79.66) Dollars, costs and disbursements, which judgment was enrolled and docketed in the Clerk's office of said Court on the 4th day of January, 1951.

Now, Therefore, you are hereby commanded that out of the personal property of said Henry Gardner or if sufficient can not be found, then out of the real property belonging to said Henry Gardner in your District on or after the said 4th day of January, 1951, you satisfy the sum of Six Thousand Seven Hundred Seventy-five (\$6,775.00) Dollars now due on said judgment with interest thereon at the rate of 5 per cent per annum on the sums of money shown on the previous page and the further sum of Seventy-nine and 66/100 (\$79.66) Dollars costs and disbursements, and also the costs of and upon this writ and accruing costs, and that you make due return of the same into said Court within sixty days after you receive this writ.

Witness, the Honorable James Alger Fee and the Honorable Gus Solomon, Judges of said Court, and the seal of said Court affixed at Portland in said District, on this 16th day of January, 1951.

[Seal]

LOWELL MUNDORFF,
Clerk.

By F. L. BUCK,
Chief Deputy.

[Title of District Court and Cause.]

MOTION

Comes now the plaintiff, appearing by and through Hicks, Davis & Tongue and W. M. Dale, Jr., his attorneys, and based upon Rule 69 of the Federal Rules of Civil Procedure and Section 6-1704 O.C.L.A. and upon the affidavits attached hereto and by this reference made a part hereof, moves this Court for a warrant of arrest requiring the United States Marshal to arrest defendant as a judgment debtor and bring him before this Court.

HICKS, DAVIS & TONGUE,

/s/ W. M. DALE, JR.,

Attorneys for Plaintiff.

AFFIDAVIT

State of Oregon,
County of Multnomah—ss.

I, William J. Crawford, being first duly sworn, on oath depose and say:

1. That I am an attorney duly admitted to practice before the courts of the State of Oregon and the United States District Court for the District of Oregon.

2. That I represent Irvin P. Auken who formerly operated a real estate office located at 4612 S. E. Hawthorne Boulevard, Portland, Oregon.

3. That until on or about January 1, 1951, Henry Gardner occupied said real estate offices with Irvin

P. Auker for a period of approximately two years.

4. That I have been informed by my client, Irvin P. Auker, and therefore believe that said Auker was informed by Henry Gardner that said Gardner was leaving the State of Oregon at 3:00 p.m. on January 16, 1951, and was going to take up a permanent residence outside the State of Oregon and that he did not intend to return to the State of Oregon.

/s/ WM. J. CRAWFORD.

Subscribed and sworn to before me this 16th day of January, 1951.

[Seal] /s/ THOMAS H. TONGUE,
Notary Public for Oregon.

My Commission Expires: 8/16/52.

AFFIDAVIT

State of Oregon,
County of Multnomah—ss.

I, William M. Dale, Jr., being first duly sworn, on oath depose and say:

1. That I am one of the attorneys for plaintiff in the above-entitled cause.

2. That on January 4, 1951, Honorable Claude McCulloch, United States District Judge for the District of Oregon, duly entered a judgment against defendant Henry Gardner in the within-entitled cause; that the amount actually due on said Judgment as of January 15, 1951, including interest and

costs, is \$8,366.87; that no part of said judgment has been paid.

3. That I have been informed by William J. Crawford, attorney for Irvin P. Auker, a business associate of Henry Gardner and therefore believe that said Henry Gardner is permanently leaving the State of Oregon on or about 3:00 p.m., January 16, 1951.

4. That I am informed and therefore believe that Henry Gardner has property in the State of Oregon which he has refused to apply to such judgment; that said property includes certain furniture and household effects now packed for shipment out of the state, a certain 1949 Oldsmobile Sedan automobile, license No. 549-013, motor No. 84-1668, serial No. 499M-1324 and certain moneys deposited in the United States National Bank, Head Office, Portland, Oregon.

5. That plaintiff Addison G. Hall, because of the demands of his employment, is now temporarily in the State of Arizona but he has no permanent address so cannot be contacted in that area.

/s/ WILLIAM M. DALE, JR.

Subscribed and sworn to before me this 16th day of January, 1951.

[Seal] /s/ THOMAS H. TONGUE,
Notary Public for Oregon.

My Commission Expires: 8/16/52.

[Endorsed]: Filed Jan. 16, 1951.

[Title of District Court and Cause.]

ORDER

This matter having come before the court upon motion of plaintiff for a warrant of arrest, the Court having examined the affidavits filed therewith and William M. Dale, Jr., an attorney of this court having made certificate of certain representations as to the facts in open court and it appearing to the Court that on January 4, 1951, judgment was entered against defendant in the amount of \$8,366.87; that said judgment has not been paid or satisfied and by said affidavits and said certificate that there is danger of said defendant leaving the state and that there is reason to believe that said defendant has property which he unjustly refuses to apply to said judgment and good cause appearing; now therefore

It Is Hereby Ordered that a warrant of arrest of defendant, Henry Gardner shall forthwith issue and the United States Marshal is hereby directed to arrest said defendant and bring him before this Court.

Dated this 16th day of January, 1951.

/s/ JAMES ALGER FEE,

United States District Judge.

[Endorsed]: Filed Jan. 16, 1951.

District Court of the United States,
District of Oregon

No. Civ. 5677

ADDISON G. HALL,

vs.

HENRY GARDNER.

COMMITMENT IN DEFAULT OF BAIL

The United States of America,
District of Oregon—ss.

The President of the United States to the Marshal
of the District of Oregon, or to his Deputy; and
to the Keeper of either of the Jails in our said
District, Greeting:

Whereas, Henry Gardner hath been arrested
upon a Bench Warrant duly issued out of said
Court, and hath this day been brought before said
Court and is now in the custody thereof; and
whereas, an order hath been duly made by said
Court that said defendant give bail in the sum of
Nine Thousand dollars, for his appearance, and that
in default thereof he be committed to the County
Jail of Multnomah County, Oregon, and whereas he
hath not given bail as required by said order.

Now, This Is to Command You, the said Marshal
or Deputy, to take and keep and safely deliver the
said defendant into the custody of the Keeper or
Warden in charge of said Jail forthwith.

And This Is to Command You, the said Keeper

or Warden in charge of the said Jail, to receive from the said Marshal or Deputy the said defendant so committed as aforesaid, and him keep and imprison in accordance with said order till he shall give bail or till he be otherwise discharged by law. Hereof fail not at your peril.

Witness the Honorable, James Alger Fee, the the Honorable Claude McColloch and the Honorable Gus J. Solomon, Judges of our said Court, and the seal thereof affixed at Portland, in said District, this 17th day of January, 1951.

[Seal] LOWELL MUNDORFF,
Clerk.

By /s/ H. S. KENYON,
Deputy Clerk.

United States of America,
District of Oregon—ss.

In obedience to the command of the within writ, I have this 17th day of January, 1951, committed to the Multnomah County Jail the within named Henry Gardner, by delivering him to the keeper thereof.

JACK R. CAUFIELD,
U. S. Marshal.

By /s/ LEO McLAW,
Deputy.

[Endorsed]: Filed Jan. 23, 1951.

[Title of District Court and Cause.]

ORDER

Now, at this day comes the United States Marshal and produces the body of the defendant above named in obedience to the warrant of arrest heretofore issued and plaintiff appearing by and through W. M. Dale, Jr., of his attorneys, and defendant appearing in person and by William B. Murray, of his attorneys, and the defendant upon being brought before the Court and examined under oath, the Court finds as a fact that there is danger of defendant debtor leaving the state and the Court finds as a fact that the debtor defendant has property which he has unjustly refused to apply to the judgment;

Thereupon the Court Orders that the defendant enter into an undertaking in the sum of \$9,000, with one or more sureties conditioned that he will from time to time attend before the Court or Judge, as may be directed, and that the debtor defendant will not, during the pendency of the proceedings, dispose of any portion of his property not exempt from execution and in default thereof he be committed to the custody of the United States Marshal.

Dated this 17th day of January, 1951.

/s/ JAMES ALGER FEE,

United States District Judge.

[Endorsed]: Filed Jan. 25, 1951.

United States District Court,
District of Oregon

No. Civil 5677

ADDISON G. HALL,

Plaintiff,

vs.

HENRY GARDNER,

Defendant.

Portland, Oregon, January 16, 1951

Before: Honorable James Alger Fee,
Judge.

Appearances:

WILLIAM M. DALE, JR.,

Of Attorneys for Plaintiff.

TRANSCRIPT OF PROCEEDINGS

The Court: I understand you have a motion for process.

Mr. Dale: Yes, your Honor.

The Court: This case was decided by Judge McCulloch?

Mr. Dale: Yes, your Honor.

The Court: What kind of a case was it?

Mr. Dale: The case was originally instituted by plaintiff upon a promissory note. The defendant filed several counterclaims as affirmative defenses, all of which, except \$225 on the first counterclaim, were denied by Judge McCulloch. Plaintiff was

awarded a judgment upon his note in the amount of \$6,775, and there are additional amounts of interest, attorney's fees and costs, which as of January 15th, amounted to \$8,366.87. [2*]

* * *

The Court: That is 6-1704. [5]

Mr. Dale: Yes, your Honor.

The Court: I have read it. It is not quite what you say.

Mr. Dale: I just read it this morning.

The Court: The Court has to be satisfied by affidavit or otherwise that there are reasonable grounds to believe.

Mr. Dale: Yes, that is correct, your Honor.

The Court: Have you got the order?

Mr. Dale: I have the order here, your Honor.

The Court: Let me set it.

The order will issue.

(Whereupon proceedings in the above matter on said day were concluded.)

* Page numbering appearing at top of page of original Reporter's Transcript of Record.

January 17, 1951

Appearances:

WILLIAM M. DALE, JR.,
Of Attorneys for Plaintiff.

WILLIAM B. MURRAY,
Of Attorneys for Defendant.

The Defendant HENRY GARDNER was present in person. [6]

The Court: You may proceed, Counsel.

Mr. Dale: Thank you, your Honor.

As your Honor knows, the defendant Henry Gardner has been brought before this Court pursuant to a warrant of arrest which was issued yesterday by your Honor pursuant to motion of plaintiff, through his attorneys, based upon the affidavits and based upon the Federal Rules of Civil Procedure, Section 69, and the Oregon statutes, pursuant to execution upon a judgment.

Does your Honor wish to proceed with testimony at this time?

The Court: I don't know. Counsel is here, I take it, for the defendant?

Mr. Murray: Yes, I appear for Mr. Gardner, your Honor. I, of course, am not apprised of the nature of the proceedings in that none of the papers or the charges have been served upon my client or upon me. The judgment in this case, as the files will show, is a judgment based upon a promissory note. It is not a type of judgment under which a body execution will issue.

The Court: Have you read the statute?

Mr. Murray: The absconding-creditor part of the statute. Of course, as I say, not being apprised of the nature of the charge, other than the fact that the defendant in this case was arrested and brought here before your Honor, I don't know [7] just what specific section the plaintiff proposes to proceed under.

The Court: Section 6-1704.

Mr. Murray: It seems to me that not only is this case an important one to this particular defendant, but it involves an important principle, and that is the extent to which a judgment debtor may be imprisoned for failure to pay a judgment.

The Court: You better read the statute and then you will know. You better read the statute first.

Mr. Murray: I have read the statute in the past, your Honor, and I am familiar with the section relating to——

The Court: Here is a copy of the statute. Pass it down and let him read it.

Mr. Murray: If the Court please, we would like to make a showing at this time to the effect that the defendant is not absconding or has no intention of absconding; that he does own real property in the state and is not concealing himself from the process of this Court and does not come within this section of the statute. He has in the past appeared in all of the proceedings in the case so far that have been brought before the Court. He has always been present when required to be present.

The Court: Let me have the statute. This pro-

vides for his examination on oath. You can place him on the stand and [8] examine him under oath and find out about this. [9]

* * *

The Court: I think at this time, as far as I am concerned, I will consider that the matter with reference to the statute has been sufficiently outlined at the present time so that I shall direct that the undertaking be given in accordance with the statute. I don't think I want to go any further and sit here for several hours to try this proceeding out. I think there is a sufficient showing at the present time so that, based upon the record, I shall direct that an undertaking be given as the statute requires.

Mr. Murray: And the amount of the undertaking, your Honor?

The Court: What will satisfy you?

Mr. Dale: Because of the attitude, your Honor, of the defendant, first of all in attempting to escape from the United States Marshal——

The Court: Never mind arguing it.

Mr. Dale: I would ask that the bond be set in the amount of the judgment, your Honor.

The Court: That will be the amount. I will do a little better than that because there might be some cost. What is the amount of the judgment?

Mr. Dale: As of January 15th \$8,366.87.

The Court: Make it \$9,000. In the meantime the defendant is remanded to the custody of the Marshal until the undertaking [30] is put up. I will be available at any time to justify the sureties.

(Whereupon proceedings in the above matter on said day were concluded.) [31]

The Court: Mr. McLean, will you take the stand?

LEO McLEAN

was thereupon produced as a witness, and, being first duly sworn, was examined and testified as follows:

The Court: Mr. Murray, will you come forward and take a seat at the counsel table? [32]

Mr. Murray: Yes, your Honor.

The Court: Mr. McLean, you are a United States Deputy Marshal?

A. Yes, sir; District of Oregon.

Q. Were you in court the other day when the case of Addison G. Hall, Plaintiff, vs. Henry Gardner, Defendant, Civil No. 5677, was before the court? A. Yes, sir.

Q. And at that time, pursuant to an order of Court, there had been a warrant of arrest issued for the Defendant Henry Gardner?

A. Yes, sir.

Q. After a hearing in court, the Court placed the Defendant Henry Gardner in custody, under an execution, because of the fact that the Court found that there was reasonable cause to believe he was attempting to conceal his property from execution and that he was attempting to escape from the state? A. Yes, sir.

Q. You took him into your custody at the time?

A. Yes.

(Testimony of Leo McLean.)

Q. Up until such time as he should, under the statute, deliver a bond for the payment of the money on an execution? A. Yes, sir.

Q. Where did you go then?

A. Where did we go from here? Directly to the jail, the [33] Multnomah County Courthouse.

Q. When you got over there what happened there?

A. When I got over there, I turned him over to the jailer at the Multnomah County Courthouse.

Q. Was there any search of his person?

A. Yes, sir. He delivered to the Multnomah County Courthouse the sum of money that he had.

Q. The Multnomah County Courthouse? Did he deliver it to you?

A. It wasn't delivered to me.

Q. What did he deliver?

A. It was kept with his property over there. All property taken from prisoners is kept at the Multnomah County Jail.

Q. Yes. What was it? A. A sum of money.

Q. How much?

A. In the neighborhood of \$1300.

Q. Did he deliver any moneys to anybody else?

A. Before we left the courtroom here, and after you had left the bench, and he was talking to his attorney, Mr. Murray, for a few minutes, he said, "You have got to arrange to get me out on bond."

Mr. Murray said, "You can't get out on bond unless you have got the money," and he said, "I

(Testimony of Leo McLean.)

have got some money," and he turned over to Mr. Murray, just from the conversation I [34] could hear, somewheres in the neighborhood of the sum of \$600.

Q. Did you see any money pass?

A. I didn't actually see. I seen him take something out of his pocket and pass it to Mr. Murray, and he said, "This six hundred ought to get me out."

The Court: Do you desire to examine, Mr. Murray?

Q. (By Mr. Murray): What was said about the \$600? Who said it?

A. I think Mr. Gardner said that some bail bondsman would get him out for about \$600, \$500 or \$600.

Q. Mr. Gardner did not say he had handed me \$600, did he?

A. He didn't say that he handed it. I saw him hand you something. He said, "That is \$600 in cash." He said he had the sum of about—he told you that he had some \$800 on him and he gave you—he said he would give you \$600.

Q. When did he say that?

A. When did he say that?

Q. Yes.

A. Shortly after the Court had told him he would be put in jail.

Q. Where was that?

A. Right there at the corner of the desk.

Mr. Murray: That is all.

(Testimony of Leo McLean.)

The Witness: I will tell you, your Honor, when we took [35] him over to jail he was searched. He voluntarily gave up the sum of \$135. \$1200 more was found concealed on his person.

The Court: Do you desire to examine further?

Mr. Dale: No questions, your Honor.

Mr. Murray: I think I should be sworn and testify as to what happened in this matter.

The Court: All right. Just a moment. Keep the Deputy Marshal on the stand for a moment.

Q. You did not report this matter to me, Mr. McLean? A. No, sir; I did not.

Q. All right. Did you realize, when the defendant was under arrest on that execution, that the Marshal was responsible under his bond for any money that passed out of his possession?

A. No, sir. I only thought at the time that the man was making arrangements to put up a bond.

Q. He was in your custody, though, placed in your custody by the Court? A. Yes.

Q. And anything he had on his person was in your custody. I suggest that you get hold of the money that was placed in the hands of Multnomah County or somebody else.

A. I immediately garnisheed all money in the hands——

The Court: Garnisheed it? How can you garnishee something in your possession, not in the possession of anybody else? [36] If you turn it over you are making a mistake. You get hold of that money right now; and if there was any money

(Testimony of Leo McLean.)

turned over, I will warn you right now that the Marshal is responsible on his bond for that. That is all.

(Witness excused.)

The Court: You can take the stand, Mr. Murray. I want to say to you when you take the stand that anything that you say may be used against you. You understand that?

Mr. Murray: I understand that. [37]

WILLIAM B. MURRAY

was thereupon produced as a witness and, being first duly sworn, testified as follows:

The Witness: My name is William B. Murray. I was called to appear for Mr. Gardner by the Clerk of this Court on a matter that I had no previous knowledge of.

I appeared in court in Mr. Gardner's behalf, and Mr. Gardner was arrested as an absconding creditor in a civil case. Mr. Gardner was examined on the witness stand. Bail was set at some \$9,000 for his release in lieu of his ability to pay the judgment.

After he was examined, I asked him in the courtroom here if he had means with which to pay for a bail bond premium or if he knew any person who could go his surety, and he knew of no one that he could get.

I told him it would be necessary for us to pay a premium and that I would undertake to apply for

(Testimony of William Murray.)

bail for him, and I asked him if he could raise any funds at all.

At that time he did pull out his purse and handed me the sum, not of \$600 but of \$200, for the purpose of paying the bail bond premium for him.

We then made an attempt to get bail for him, Mr. Gardner, in this case, and we were unable to arrange bail, and then he was seen subsequently by Mr. Hjelte and, inasmuch as the money had been given to us for a specific purpose, we did not apply it upon attorney's fees until he then signed an [38] authorization, and, as I understand it from my associates, the \$200 would be applied on account of attorney's fees. That is all.

I might add, further, as far as knowing that the defendant had any money at all, I didn't know that he had any at the time he was examined, and didn't learn that there was any money found on him, any further money in his clothing, until I had the hearsay report after the defendant was arrested and after he was confined to jail. I haven't seen Gardner personally since that time, but my associate has seen him.

The Court: Who is your associate?

The Witness: Mr. Reinmiller, George Reinmiller.

The Court: Do you wish to examine?

Mr. Dale: No questions, your Honor.

Mr. Murray: If the Court please, I would like at this time to be heard further on this matter if the Court would hear me.

(Testimony of William Murray.)

The Court: Yes, I will hear you.

Mr. Murray: At this time I would like to move the Court for an order quashing the writ of arrest ordered by the District Court of the United States in the case of Addison G. Hall vs. Henry Gardner, upon the ground and for the reason that the order is void, or voidable, and is contrary to the statutes of the State of Oregon.

The Court: I do not want to hear you on that, whether there [39] was a valid order in effect. It may be voidable, but there was a valid order in effect at the time.

The question you have to answer, however, is the question of taking money from a man who was committed on an execution for the purpose of applying any property to the satisfaction of a judgment; in other words, obstruction of the process of the Court. That is what you have to answer, and that is what I will hear you on, if you want to say something about that.

Mr. Murray: May I ask the Court for time in which to answer that particular charge? At this time, I have had no——

The Court: All right. If you haven't anything to say on that subject, I will tell you what I am going to do about it.

I now order you committed to the custody of the United States Marshal and placed in his custody. I will place that order in effect at 6:00 o'clock tonight. If, in the meantime, you have placed the money that you took from the prisoner in the hands

(Testimony of William Murray.)

of the Marshal, then at any time I will hear you upon this other matter.

Mr. Murray: Upon the motion to vacate the order, your Honor?

The Court: Yes. I suggest that you make your first order of business getting the money back in the hands of the Marshal. You are committed, subject to the condition that you pay it back. [40]

Mr. Murray: I can do that forthwith, your Honor.

The Court: All right.

(Mr. Murray then turned over a sum of money, in currency, to the United States Marshal.)

Mr. Murray: May I proceed to present——

The Court: All right. How much money did you get, Mr. Marshal?

U. S. Marshal Caulfield: \$200.

The Court: That is all you took from him?

Mr. Murray: That is all, your Honor.

The Court: Now then, I am going to place the other implications of this matter in the hands of the Bar of this Court, and am going to suggest that the Committee on Discipline of the Bar, appointed by this Court, examine this matter and see if there is any further implication.

I will hear this other matter, but I will hear it in due course. I have a great many other matters coming on before the Court. I have taken this matter up as an emergency. I shall hear you upon that

(Testimony of William Murray.)

other matter, because, in my idea of this, this is not a proceeding for imprisonment for a debt, and I will take up the question of whether or not the order was void, and if there are not some terms upon which you can release your client.

I may also say in that connection there is something else, and that is your attorney's fee in this. The mistake [41] you made was in not presenting that matter to the Court, because the Court would have protected you in the matter of attorney's fees, if that had been the situation. As I understand it, you did not take it for that purpose, in the first instance?

Mr. Murray: That is right. It was originally given me for bail; the specific purpose was not to apply as attorney's fees.

The Court: I understand your statement on that, and I say that is the error that you committed in taking it for any purpose whatsoever, in view of the commitment. I think it is a very serious matter, and I am going to pass it over to the hands of the Bar, as far as any other implications are concerned. I am not going to deal with that myself.

I may say, as far as your client is concerned, I think there is reasonable ground now to present the matter as to whether I could not release him in any event, if there are any terms upon which the Court can properly release him.

As far as attorney's fees are concerned, you have the right to make an application to the Court, because the money is in custodia legis, and I think I

(Testimony of William Murray.)

would have the right to pay you for defending him. These things, where the money is in custodia legis, must be done through the machinery of the Court and cannot be done by any machinery of self-help. Therefore, I will dismiss the proceeding at present and will [42] take it up at any time you may apply during the course of the day, when we arrive at disposition of the other matters before the Court.

Mr. Murray: I am now ready to argue the invalidity of the order at any time that suits your Honor's convenience, if your Honor will set the time.

The Court: I can't tell you what the time will be. I have a great many other obligations.

(The Court then proceeded to the transaction of other business.) [43]

January 22, 1951

Present: Mr. William M. Dale, Attorney for Plaintiff. Mr. William B. Murray, Attorney for Defendant.

The Court: I will discuss the question when he gets here.

Mr. Murray: This will be on a motion, your Honor.

The Court: Any questions you want to raise. I think probably your client should be in court.

Mr. Murray: Yes, I think so, too, your Honor. I would like to have him here.

The Court: I think we can take it up at 10:00 o'clock tomorrow morning. My calendar is very crowded this afternoon.

Mr. Murray: Would Wednesday suit your Honor's convenience?

The Court: Yes.

Mr. Murray: That would suit me better, your Honor, because I have to appear in the Supreme Court tomorrow to argue a case.

The Court: Very well.

Mr. Dale: Wednesday at 10:00 o'clock is fine.

The Court: Wednesday at 10:00 o'clock. I will not only consider the question of whether the order is invalid but also [43] consider the question of whether there is any way in which you can give reasonable security for his bond and release. I don't want to have it look like this is imprisonment for a debt, because it is not. I, of course, want to make reasonable assurance to Counsel that he can collect his judgment. I will take up that question and if you have any suggestions at that time as to how that can be worked out, I will be glad to give it consideration.

Mr. Murray: Relative to the question of attorney's fees, I might say, your Honor, I did not try this case originally. It was tried by my associate in the office, and when I was called I was not familiar with the background of this case. Inasmuch as my associate was busy, I answered the call and came up here at your Honor's request. I will say, however, I think I did assist in the preparation of the

pre-trial order, and probably my name appears as one of the attorneys of record in that case originally.

The Court: It was not at my request. I do not usually send you a request. I send you orders, but it was not my request. It was at the defendant's request that you be called. We just transmitted the call as a courtesy.

Mr. Murray: Thank you very much. Also, as to the question of attorney's fees, would the Court entertain a petition for the allowance of attorney's fees?

The Court: Yes, I will entertain it. [44]

Mr. Dale: Would your Honor also possibly consider a motion on behalf of the plaintiff to conduct further supplemental proceedings?

The Court: Yes. I will consider the whole question. If there is any way it can be done, with reasonable safety to you, I will let this man out of confinement. Likewise, I think you ought to investigate the situation and see if you cannot carry out proper measures to protect yourself.

Mr. Dale: We are going to.

The Court: Likewise, the question of the disposition of this fund which is now in the hands of the Marshal; the question of whether I should allow Mr. Murray a fee will also be submitted on Wednesday at 10:00 o'clock.

(The Court is in recess.) [45]

[Title of District Court and Cause.]

NOTICE OF APPEAL

Appellant: William B. Murray, 525 Failing Building, Portland 4, Oregon.

Attorney for Appellant: William B. Murray, 525 Failing Building, Portland 4, Oregon.

Generally stated, the offense charged was contempt of court in taking money from a man who was committed on an execution for the purpose of applying any property to the satisfaction of a judgment; in other words, obstruction of the process of the court.

A concise statement of the orders appealed from, their respective dates and the sentence imposed, is as follows:

January 22, 1951—Order finding appellant guilty of contempt of court as charged.

January 22, 1951—Order committing appellant to the custody of United States Marshal subject to condition that appellant pay to United States Marshal the sum of \$200.00.

January 22, 1951—Order referring matter to the Committee on Discipline of the Bar appointed by the court.

January 22, 1951—Ensuing public reprimand by the Judge in open court.

I, the above named appellant, hereby appeal to the United States Court of Appeals for the Ninth

Circuit from the above-stated orders and reprimand and each of them.

Dated January 31, 1951.

/s/ WILLIAM B. MURRAY.

Appellant.

[Endorsed]: Filed Jan. 31, 1951.

CLERK'S CERTIFICATE

United States of America,
District of Oregon—ss.

I, Lowell Mundorf, Clerk of the United States District Court for the District of Oregon, do hereby certify that the foregoing documents consisting of Amended judgment order, praecipe for execution, execution, motion for warrant of arrest, affidavit of William J. Crawford, affidavit of William N. Dale, Jr., Order for warrant of arrest, warrant of arrest, order for defendant to give bond, commitment in default of bail, motion for order of release, order releasing defendant, order allowing attorney to withdraw, notice of appeal, bond on appeal, points upon which appellant will rely, designation of contents of record, affidavit of William B. Murray, transcript of docket entries, and this certificate of clerk, constitute the record on appeal from an order of contempt, in a cause therein numbered Civil 5677, in which Addison G. Hall is Plaintiff, and Henry Gardner is Defendant, Appellant William B. Murray appearing as attorney for Defend-

ant Henry Gardner; that the said record has been prepared by me in accordance with the designation of contents of record on appeal filed by the appellant, and in accordance with the rules of this court.

I further certify that there is enclosed herewith duplicate transcript of proceedings dated January 16, 17, 22, 24, 25 and 26, 1951, filed in this office in this cause.

I further certify that the cost of filing notice of appeal is \$5.00 and has been paid by the appellant.

In Testimony Whereof I have hereunto set my hand and affixed the seal of said court in Portland, in said District, this 14h day of February, 1951.

[Seal] LOWELL MUNDORFF,
Clerk.

By /s/ F. L. BUCK,
Chief Deputy.

[Endorsed]: No. 12854. United States Court of Appeals for the Ninth Circuit. In the matter of William B. Murray, Appellant. Transcript of Record. Appeal from the United States District Court for the District of Oregon.

Filed February 16, 1951.

/s/ PAUL P. O'BRIEN,
Clerk of the United States Court of Appeals for the
Ninth Circuit.

In the United States Court of Appeals
for the Ninth Circuit

No. 12854

ADDISON G. HALL,

Plaintiff,

vs.

HENRY GARDNER,

Defendant,

IN RE WILLIAM B. MURRAY,

Appellant.

POINTS UPON WHICH
APPELLANT WILL RELY

Statement of Points

Comes now William B. Murray, appellant above named, and hereby designates the following points on which he intends to rely:

1. An order dismissing contempt proceedings against an attorney followed by an unwarranted undeserved public reprimand is a "final order" reviewable on appeal.

2. The process referred to by the Court as "committed on an execution," i.e., execution against the person and body of the defendant, in the charge of contempt¹ is in fact non-existent in this case.

¹The charge of contempt of January 22, 1951, as pronounced by the Court, "The question you have to answer, however, is the question of taking money from a man who was committed on an execution for the purpose of applying any property to the satisfaction of a judgment; in other words, obstruction of the process of the Court."

The process actually issued by the Clerk was "commitment in default of bail" of a judgment debtor for non-compliance with the court's order to post bail for his appearance.² There was no other process of the court involved in the contempt of court proceedings against appellant.

3. Even if defendant had been "committed on an execution," such execution does not prevent judgment debtor from transferring his property in absence of an order restraining him from doing so, nor would such process prevent appellant from lawfully accepting money from such judgment debtor under Oregon law.

4. The Court erred in finding appellant guilty of contempt of court when appellant was doing what it was his duty to do and what he had the right to do, i.e., accepting \$200.00 from judgment debtor for the purpose of assisting debtor in carrying out court's order to post bail for debtor's appearance.

²Commitment in default of bail issued January 17, 1951 (omitting formal parts), recites: "... Whereas, an order hath been duly made by said Court that said defendant give bail in the sum of \$9,000.00, for his appearance and that in default thereof he be committed to the County Jail of Multnomah County, Oregon, and, Whereas, he hath not given bail as required by said order . . . and this is to command you, the said Keeper or Warden in charge of the said Jail, to receive from the said Marshal or Deputy the said defendant so committed as aforesaid, and him keep and imprison in accordance with said order till he shall give bail or till he be otherwise discharged by law.

5. The District Court erred in ordering commitment of appellant to custody of United States Marshal subject to condition that appellant pay to United States Marshal the sum of \$200.00.

6. The District Court erred in referring matter to Committee on Discipline of the Bar appointed by the Court when appellant did nothing he did not have a lawful right to do and was not guilty of any specific act of non-feasance or misfeance nor breach of any ethical rule of conduct.

7. The District Court erred in publicly reprimanding appellant in open court after dismissing contempt proceedings against appellant.

8. The District Court erred in summarily trying appellant for contempt of court when the Judge failed to certify that he saw or heard the conduct constituting the contempt and that it was committed in the actual presence of the Court and when the order and findings of contempt failed to recite the facts and have not been signed and entered of record.

9. The District Court erred in prosecuting said contempt proceedings against the appellant without notice, without stating the time and place of the hearing, and without giving the appellant a reasonable time as requested by appellant for the preparation of his defense.

10. The District Court erred in the charge of contempt pronounced in open court in that the charge so pronounced did not contain essential

facts of nonfeasance or misfeasance constituting contempt, nor was the charge described as a criminal contempt. Past acts of misfeasance or nonfeasance which may constitute contempt of court can only be prosecuted upon proper notice to the contemptnor.

/s/ WILLIAM B. MURRAY,
Attorney for Appellant.

State of Oregon,
County of Multnomah—ss.

Due service of the within Points Upon Which Appellant Will Rely is hereby accepted in Multnomah County, Oregon, this 19th day of February, 1951, by receiving a copy thereof, duly certified to as such by William B. Murray, Attorney for Appellant.

/s/ W. M. DALE, JR.,
Attorney for Appellee.

State of Oregon,
County of Multnomah—ss.

I, William B. Murray, being first duly sworn, depose and say:

That I am attorney for appellant and that I did on the 19th day of February, 1951, deposit in the United States Mail in an envelope with first-class postage thereon prepaid addressed to Henry L. Hess, United States Attorney for the District of Oregon, United States Court House, Portland, Ore-

gon, certified copy of the within Points Upon Which Appellant Will Rely.

Furthermore deponent saith not.

/s/ W. B. MURRAY.

Subscribed and sworn to before me this 19th day of February, 1951.

[Seal] /s/ EDITH C. SCHULZ,
Notary Public for Oregon.

My Commission Expires: April 25, 1954.

[Endorsed]: Filed Feb. 21, 1951.

[Title of Court of Appeals and Cause.]

DESIGNATION OF CONTENTS OF RECORD ON APPEAL

Comes now William B. Murray, the appellant above named, and respectfully designates for inclusion in the printed record on appeal to the United States Court of Appeals for the Ninth Circuit the complete record of all proceedings and evidence in the contempt of court proceedings against the appellant omitting argument of counsel but including the following:

1. A list of all docket entries from June 29, 1950.

2. All of the evidence and proceedings at the trial or hearing on the contempt charge against appellant above named, stenographically reported

excepting arguments of counsel, including all of the following appearing on the page numbers designated in said record stenographically reported as follows:

a. January 16, 1951, Tuesday, Record of hearing, pp. 1 and 6.

b. (1) Record of hearing, January 17, 1951, Wednesday, pp. 7 and 8 (omitting examination of judgment debtor). Also line 1, page 9.

(2) Ruling of the Court, pp. 30 and 31.

c. January 22, 1951, Monday, copy pp. 32 to 43, inclusive, being all of the testimony and the entire record stenographically reported concerning the contempt proceedings.

3. Amended judgment as entered in lien docket January 6, 1951.

4. Writ of execution on the personal and real property of the defendant Henry Gardner issued to the United States Marshal on January 16, 1951.

5. Plaintiff's motion for warrant of arrest of defendant Henry Gardner as judgment debtor and to bring him before the court, together with supporting affidavits filed January 16, 1951.

6. Order directing that a warrant of arrest of defendant Henry Gardner issue and directing the United States Marshal to arrest the defendant and bring him before the court dated and filed January 16, 1951.

7. Commitment in default of bail wherein it is recited that defendant Henry Gardner give bail in

the sum of \$9,000.00 for his appearance and that in default thereof he be committed. Issued January 17, 1951; filed January 23, 1951.

8. Order fixing bond and for commitment erroneously dated January 17, 1951. Filed January 25, 1951.

/s/ W. B. MURRAY,
Attorney for Appellant.

Service accepted.

[Endorsed]: Filed Feb. 21, 1951.

United States
COURT OF APPEALS
for the Ninth Circuit

IN THE MATTER OF
WILLIAM B. MURRAY,
Appellant.

APPELLANT'S BRIEF

Appeal from the United States District Court for the
District of Oregon.

FILED

APR 23 1951

WILLIAM B. MURRAY,
525 Failing Building,
Portland 4, Oregon,
Attorney for Appellant.

PAUL H. O'BRIEN,
CLERK

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United States
COURT OF APPEALS
for the Ninth Circuit

IN THE MATTER OF
WILLIAM B. MURRAY,
Appellant.

APPELLANT'S BRIEF

Appeal from the United States District Court for the
District of Oregon.

JURISDICTIONAL STATEMENT

This contempt proceeding was prosecuted in a summary manner *sua sponte* by the Honorable James Alger Fee, Judge of the District Court of the United States for the District of Oregon (R. 29). The complaint charged

contempt of court by obstruction of the process of the court (R. 29). The Court ordered the appellant committed subject to appellant paying a sum of money to the United States Marshal, which appellant paid under compulsion (R. 30). The Judge accompanied his order dismissing the proceedings for contempt with a public reprimand in open court (R. 30, 31, 32).

Jurisdiction over contempts is conferred upon the District Courts of the United States by Title 18, U.S.C., Section 401, as follows:

"A Court of the United States shall have power to punish by fine or imprisonment, at its discretion, such contempt of its authority and none other, as . . . (3) Disobedience or resistance to its lawful writ, process, order, rule, decree, or command."

The United States Court of Appeals has jurisdiction to review the contempt proceeding of the United States District Court for the District of Oregon by virtue of Title 28, U.S.C., Section 1291, which provides:

"The courts of appeals shall have jurisdiction of appeals from all final decisions of the district courts of the United States . . . except where a direct review may be had in the Supreme Court."

An order dismissing contempt proceedings for the punishment of an attorney, accompanied by a public reprimand in open court, is a "final order which can be reviewed on appeal by the United States Court of Appeals." *McCall Co. v. Bladworth, et al.*, 290 Fed. 365 (CCA 2, 1923).

STATEMENT OF THE CASE

Judgment on a promissory note was rendered against the defendant, Henry Gardner, in the case of Hall v. Gardner (R. 7, 19). On January 17, 1951, the United States District Court for the District of Oregon ordered the judgment debtor committed to jail until he should furnish \$9,000 bail for his appearance (R. 15). Mr. Gardner asked his attorney, William B. Murray, to try to obtain a bail bond for him and handed Mr. Murray \$200 with which to pay the premium (R. 27, 28). Mr. Murray and his associates were unable to obtain bail for Mr. Gardner. Since the money had been given to Mr. Murray for the specific purpose of paying for a bail bond, it was not applied on attorney's fees until Mr. Gardner signed an agreement specifically authorizing application of the \$200 on account of attorney's fees (R. 28).

On January 22, 1951, Mr. Murray was suddenly proceeded against without notice by Judge Fee in a summary proceeding and found guilty of contempt of court for having accepted the \$200 from his client for any purpose whatsoever (R. 31). The oral charge of contempt and appellant's request for time to prepare his answer, which was interrupted by the Court, and the sentence pronounced immediately by the Judge, all succeeded each other swiftly, as appears from the stenographic transcript in the Record, pages 29 to 30, reprinted as follows:

"The Court: The question you have to answer,

*Marginal note supplied.

however, is the question of taking money from a man who was committed on an execution for the purpose of applying any property to the satisfaction of a judgment; in other words, obstruction of the process of the Court. That is what you have to answer, and that is what I will hear you on, if you want to say something about that.

Mr. Murray: May I ask the Court for time in which to answer that particular charge? At this time, I have had no—

The Court: All right, if you haven't anything to say on that subject, I will tell you what I am going to do about it.

I now order you committed to the custody of the United States Marshal and placed in his custody. I will place that order in effect at 6:00 o'clock tonight. If, in the meantime, you have placed the money that you took from the prisoner in the hands of the Marshal, then at any time I will hear you upon this other matter.

The appellant complied forthwith with the Court's order by turning over \$200 to the United States Marshal (R. 30). Instead of hearing the motion which appellant was presenting in behalf of Mr. Gardner, the Judge immediately reprimanded the appellant as an attorney and officer of the court, saying:

"Now then, I am going to place the other implications of this matter in the hands of the Bar of this Court and am going to suggest that the Committee on Discipline of the Bar, appointed by this Court, examine the matter and see if there is any further implication." (R. 30)

Consideration of the motion being presented in behalf of Mr. Gardner was postponed (R. 30, 33). The Judge

*Marginal note supplied.

stated that he considered Mr. Murray's error in taking money from Mr. Gardner for any purpose whatsoever, in view of the commitment, a very serious matter (R. 31). He had taken it up as an emergency (R. 30).

William B. Murray appeals from the District Court's orders committing appellant to the custody of the United States Marshal subject to the condition that appellant pay to the Marshal the sum of \$200, from the order referring the matter to the Committee on Discipline of the Bar appointed by the Court and from the public reprimand administered to the appellant by the Judge in open court.

This case presents the following questions:

First: When the Court ordered the appellant's client, a judgment debtor, "give bail in the sum of \$9,000 for his appearance, and that in default thereof he be committed . . .",⁽¹⁾ was the appellant guilty of "disobedience" or "resistance" to the Court's "process" within the meaning of Title 18, U.S.C., Section 401(3), when he accepted \$200 to use in assisting the judgment debtor to comply with the Court's order to give bail?

Second: Does the charge of contempt, as laid by the Judge, state facts sufficient to constitute contempt of court?

Third: Is there any substantial evidence in the record to support the Judge's charge of contempt?

Fourth: Was the appellant denied a substantial right by the Judge's failure or refusal to follow procedural requirements mandatory in a contempt proceeding?

⁽¹⁾ Quoted from commitment in default of bail (R. 15).

SPECIFICATION OF ERRORS

FIRST: The charge of contempt as laid does not state facts sufficient to constitute contempt of court, and is not supported by any substantial evidence.

SECOND: The Court erred in finding the appellant guilty of contempt of court for doing what it was appellant's duty to do and what he had the right to do, i.e., accept \$200 from his client for the purpose of assisting the judgment debtor to carry out the court's order to post bail for the debtor's appearance.

THIRD: The Court's error in failing to conduct the contempt proceeding in accordance with mandatory procedural requirements renders the orders appealed from invalid.

FOURTH: The District Court erred in ordering appellant committed to the custody of the United States Marshal, subject to the condition that the appellant pay to the Marshal the sum of \$200.

FIFTH: The District Court erred in punishing the appellant by administering a public reprimand.

ARGUMENT

FIRST SPECIFICATION OF ERROR: The charge of contempt as laid does not state facts sufficient to constitute contempt of court, and is not supported by any substantial evidence.

Points and Authorities

(1) The District Court's power to punish for contempt is limited by Federal statute specifying what acts constitute contempt.

Title 18 U.S.C., Section 401.

Ex Parte Robinson, 19 Wall 505, 86 U.S. 505, 22 L. Ed. 205 (1873).

Morgan v. United States, 95 F. (2d) 830 (CCA 8, 1938).

Klein v. United States, 151 F. (2d) 286 (CA DC, 1945).

(2) In proceedings to enforce a judgment for the payment of money by writ of execution, a federal district court is bound to follow the law of the state in which the federal district court is held.

Title 28 U.S.C., Section 2007.

Rule 69(a), Federal Rules of Civil Procedure.

Oregon Constitution, Article 1, Sec. 19.

(3) Under the kinds of execution provided by Oregon statute, a commitment on execution does not authorize any levy upon the property of a judgment debtor.

Section 6-1101 O.C.L.A.

Section 6-1102 O.C.L.A.

Section 6-1107 O.C.L.A.

"Blackstone's Commentaries of the Law" edited by Bernard Gavit, (1941) Book 3, pages 719, 721, 723.

Dahms v. Sears, et al., 13 Or. 47, 11 P. 891 (1885).

(4) The evidence fails to support the charge. The judgment debtor was not "committed on an execution."

(5) If the judgment debtor was "committed on an execution", the evidence shows that the statutory requirements were not followed and therefore the proceeding based on a void execution was fatally defective and void.

Section 6-1107 O.C.L.A.

Section 7-302 O.C.L.A.

Norman v. Zieber, 3 Or. 197 (1870).

Klenoff v. Goodstein, 268 App. Div. 510, 51 N.Y.S. (2d) 919 (1944).

Cannon v. Haverty Furniture Co., 179 S.C. 1, 183 S.E. 469 (1935).

Stern v. Sullivan, 135 Me. 1, 188 A. 719 (1936).

The power to punish for contempt should not be employed arbitrarily or capriciously when no contempt has been committed. While it has been recognized from time immemorial that courts must necessarily possess power to make their authority respected, this "inherent" power to punish disobedience or disrespect is so susceptible to abuse that, in the United States, successive acts of Congress have restricted the contempt powers of the federal district courts within ever narrower limits. To decide what behavior constitutes contempt of court and renders a person punishable is not within the discretion of a United States District Judge; the power of the district courts to punish summarily for contempts is limited today by the statute specifying in what cases punishment for contempts may be inflicted. Title 18 U.S.C., Sec.

401, Appendix 1-A. An order punishing as a contempt conduct which is reprehensible and deserving of punishment, but which does not constitute contempt within the meaning of the statute, will be reversed. *Ex Parte Robinson*, 19 Wall 505, 86 U.S. 505, 22 L. Ed. 205 (1873); *Morgan v. United States*, 95 F. (2d) 830 (CCA 8, 1938); *Klein v. United States*, 151 F. (2d) 286 (CA DC, 1945).

The charge of contempt pronounced in open court is so brief that we reprint it here in full:

“The question you have to answer, however, is the question of taking money from a man who was committed on an execution for the purpose of applying any property to the satisfaction of a judgment; in other words, obstruction of the process of the Court.” (R. 29).

The only act charged, i.e., receiving money from a man “committed on an execution” is not unlawful and therefore is not an act of misfeasance sufficient to constitute contempt of court.

In proceedings to enforce a judgment for the payment of money by writ of execution, a federal district court is bound to follow the law of the state in which the federal district court is held. Since imprisonment for debt has been abolished in Oregon, the limitations, conditions and restrictions upon commitments by writ of execution provided by Oregon law apply to any writ of execution or process issued from the Federal District Court for Oregon. Title 28, U.S.C., Sec. 2007, Appendix 1-B; Rule 69(a), Federal Rules of Civil Procedure, Appendix 1-C; Oregon Constitution, Article I, Sec. 19, Appendix 2-A.

Three kinds of executions are provided by the Oregon laws: one against the property of the judgment debtor, another against his person, and the third for restitution of property. Sec. 6-1101, O.C.L.A., Appendix 2-B. Of these, the only one under which Henry Gardner could have been committed by the Judge is an execution against the person. Now execution against the person as limited by Oregon law, is not an execution against the property of the judgment debtor, and it authorizes no levy against his property. Execution against the debtor's person cannot issue until after the execution against his property is returned unsatisfied. Section 6-1107, O.C. L.A., Appendix 2-D.

A comparison of these statutory writs with the common law writs which they resemble may be helpful here. The execution against the property operates in rem against the goods and chattels of the judgment debtor and corresponds to the common law writ of *fiery facias*. Sec. 6-1102, O.C.L.A., Appendix 2-C; "Blackstone's Commentaries on the Law" edited by Bernard Gavit, (1941) Book 3, Page 721, Appendix 3-B.

The execution against the person under Oregon law resembles in some respects the common law writ of *capias ad satisfaciendum*. Both deprive the debtor of his liberty, and when a debtor is once taken in execution, no other process can be sued out against his lands or goods. Both operate in personam to coerce the debtor by imprisonment to pay voluntarily the judgment debt and he thus obtains his release. Section 6-1107, O.C. L.A., Appendix 2-D; "Blackstone's Commentaries on

the Law" edited by Bernard Gavit, (1941) Book 3, Page 719, Appendix 3-A.

Oregon law does not provide any writ of execution to correspond to the common law writ of *extendi facias*, which was an execution against both the body and the lands and the goods of the judgment debtor and operated both in personam and in rem. "Blackstone's Commentaries on the Law" edited by Bernard Gavit, (1941), Book 3, Page 723, Appendix 3-C.

The money taken by the sheriff from a person arrested on civil process is not subject to attachment or levy by virtue of any writ of execution. That doctrine was established in Oregon in 1885 by the case of *Dahms v. Sears*, 13 Or. 47, 11 P. 891 (1885), and it has never been departed from in this jurisdiction.

Inasmuch as no levy could be made against the debtor's property by virtue of an execution against his person, the "commitment on an execution" cannot and does not prohibit the judgment debtor from paying out his money for any purpose, nor does it prohibit anyone from receiving money from the judgment debtor. Therefore, the "commitment on execution for the purpose of applying property to the satisfaction of a judgment", referred to in the Court's charge, is not authorized under the Oregon statutes by an execution against the person. The Court may have had in mind something resembling the common law writ of *extendi facias*, which prevails today in some jurisdictions but not in Oregon.

Since the only writ upon which the judgment debtor could be "Committed on an execution" is not operative

against his property or money, taking money from the man could not be obstruction of such process, and therefore the accusation pronounced by the judge fails to state a charge in contempt.

Furthermore, there is no substantial evidence to support the charge as laid by the Judge. Leo McLean, United States Deputy Marshal, testified that Henry Gardner was placed in custody under an execution (R. 23); and that he was under arrest under an execution (R. 26). The process referred to in the charge was labeled by the Court as a commitment on execution (R. 29). The commitment on execution referred to in this case is in fact non-existent. The writ itself is the best evidence and should be conclusive on this issue of fact. Commitment in Default of Bail, which see (R. 15). If not conclusive, then appellant maintains that the commitment on execution is void.

Should the commitment be regarded as a commitment on an execution against the person, then the entire proceedings based thereon are fatally defective and void. *Norman v. Zieber*, 3 Or. 197 (1870); *Klenoff v. Goodstein*, 268 App. Div. 510, 51 N.Y.S. (2d) 919 (1944); *Cannon v. Haverty Furniture Co.*, 179 S.C. 1, 183 S.E. 469 (1935); *Stern v. Sullivan*, 135 Me. 1, 188 A. 719 (1936).

The statutory requirements of Sec. 6-1107, Appendix 2-D, and Sec. 7-302, O.C.L.A., governing commitment on execution, Appendix 2-E, were not strictly followed in that the execution against the property of the judgment debtor (printed at length R. 9, 10) was not returned unsatisfied prior to the commitment. The Docket

entries show that this execution (against the property of the judgment debtor) was issued to the marshal on January 16, 1951, and that the warrant of arrest issued to the marshal on the same day, and that commitment in default of bail was issued to the marshal on the day following, January 17th (R. 4, 5). The judgment creditor did not post the undertaking required for an execution against the person, nor did he deliver to the officer for service on the judgment debtor a copy of the writ upon which such execution should be based, nor was the judgment debtor served by the officer (R. 20).

The only proceedings in aid of execution initiated by the able counsel for the plaintiff-judgment creditor were proceedings permitted by statutes after the issuance of an execution against the property of the judgment debtor. They did not seek nor obtain an execution against the person of the judgment debtor. Nevertheless, the entire contempt proceedings were initiated by the Judge on the assumption that the debtor had been "committed on an execution" and that receiving money from a man so committed was reprehensible. The foregoing discussion should suffice as a demurrer to the Court's charge and to establish that the evidence fails to support the charge.

ARGUMENT

SECOND SPECIFICATION OF ERROR: The Court erred in finding the appellant guilty of contempt of court for doing what it was appellant's duty to do

and what he had the right to do, i.e., accept \$200 from his client for the purpose of assisting the judgment debtor to carry out the court's order to post bail for the debtor's appearance.

Points and Authorities

(1) In the absence of an order restraining the arrested judgment debtor from spending the money in his pocket, the appellant had the right to receive such money for any purpose.

(2) What cash a judgment debtor has in his pocket is not exposed to execution.

Waples on Homestead and Execution, ch. 26, sec. 6, p. 834.

(3) Proceedings in the Federal District Court in aid of execution must conform to the Oregon statutes.

Rule 69(a) Federal Rules of Civil Procedure.

(4) When a judgment creditor elects to arrest the judgment debtor under Section 6-1704, O.C.L.A., he thereby renounces his right to proceed under Sections 6-1701, 1702, 1703, O.C.L.A.

Section 6-1701, O.C.L.A.

Section 6-1702, O.C.L.A.

Section 6-1703, O.C.L.A.

Section 6-1704, O.C.L.A.

(5) Although disobedience of court's order under Sections 6-1701, 1702, and 1703, O.C.L.A., may be punished as contempt, failure to give undertaking required under Section 6-1704, O.C.L.A., is not punishable by

contempt, because the court cannot simultaneously order an act and make that act punishable.

Section 6-1701, O.C.L.A.

Section 6-1702, O.C.L.A.

Section 6-1703, O.C.L.A.

Section 6-1704, O.C.L.A.

(6) The process by which the judgment debtor was held in jail was a commitment in default of his giving bail for his appearance, which process did not prohibit the debtor from paying, nor appellant from receiving money from the debtor.

(7) The federal court has no jurisdiction to punish as a contempt disobedience to an order which the court intended to make, but which in fact was never made.

Ex Parte Buskirk, 72 Fed. 14 (CCA 4, 1896).

(8) In this case there was no process nor order of the court nor statutory provision which would operate to place in custody of the law money on the person of the arrested judgment debtor.

(9) Money taken from an arrested judgment debtor by an officer or jailer is not subject to execution.

Commercial Exchange Bank v. McLeod, 65 Iowa 665, 19 N.W. 329 (1884).

Dahms v. Sears, et al., 13 Or. 47, 11 P. 891 (1885).

Emmanuel v. Sichoisky, 198 Cal. 713, 247 P. 205, 48 A.L.R. 580 (1926).

Coffee v. Haynes, 124 Cal. 561, 57 P. 482 (1899).

Before the appellant can properly be found guilty of contempt of court on a charge of "obstructing the

process of the court", he must first have committed some act of misfeasance or nonfeasance amounting to disobedience or resistance to some lawful writ, process, order, rule, decree or command of the court. Title 18 U.S.C., Sec. 401. Appendix 1-A. Appellant committed no act of disobedience or resistance to the process laid in the court's charge of contempt, nor did appellant disobey or resist any other process of the court whatsoever. The acts done by appellant as an attorney in behalf of his client are strictly within the rights of his client and himself and are in no way open to criticism from a professional standpoint.

In the absence of any order restraining the judgment debtor Henry Gardner from spending the money in his pocket as he might see fit, he had the right to pay, and the appellant had the right to receive, such money for any purpose whatsoever.

It is well established that what cash a judgment debtor has in his pocket is not exposed to execution. Waples on Homestead and Execution, ch. 26, sec. 6, p. 834. A lawful method whereby the judgment debtor may be required to take the money out of his pocket and apply it to the satisfaction of the judgment against him is provided by statute, but the statutory provisions must be complied with. When brought in the Federal District Court for the District of Oregon, proceedings supplementary to and in aid of an execution must conform to the Oregon state statutes in force. Rule 69(a) Federal Rules of Civil Procedure, Appendix 1-C.

When enforcing his rights under the applicable Ore-

gon statutes, a judgment creditor must elect to follow one of alternative and mutually exclusive statutory remedies allowed him. It is the judgment creditor's privilege to select under which code section he chooses to proceed, and the court cannot make the choice for him. The judgment creditor may either proceed under Sections 6-1701, 1702, 1703, O.C.L.A., Appendix 2-F, or in the alternative he may elect to have the judgment debtor arrested under Section 6-1704, O.C.L.A., Appendix 2-G. Under the first method, if it appears upon examination of the judgment debtor that he has property liable to execution, the court may order the debtor to apply that property in satisfaction of the judgment, and the creditor may obtain an order of the court restraining the debtor from disposing of his property liable to execution pending the proceeding. Disobedience of these orders may be punished as and for a contempt.

In the present instance, the judgment creditor elected to proceed under Section 6-1704, O.C.L.A. (R. 21, 11). Under this second method, if the judge is satisfied that the judgment debtor has property which he wrongfully refuses to apply to the judgment, the court may order the judgment debtor to enter into an undertaking that he will attend the court and during the pendency of the proceeding will not dispose of any portion of his property not exempt from execution. In default of such undertaking the debtor is committed to jail. Section 6-1704, O.C.L.A., Appendix 2-G. This section authorizes only an order to enter into the undertaking so conditioned. If proceeding under this section, the court can-

not enter an order restraining the disposal of the debtor's property, and the debtor's failure to furnish the undertaking is not punishable as a contempt.

On plaintiff's motion, the Court ordered the arrest of Henry Gardner under Section 6-1704, O.C.L.A., and the judgment debtor was brought before the court (R. 20). During the examination of the debtor, the Court, being of the opinion that a sufficient showing had been made with reference to the statute, stopped the examination and directed that debtor give an undertaking as required by the statute (R. 22). The debtor was then committed in default of bail for his appearance (R. 15, 16). The recitals and the commands to the marshal and jailer are reprinted as follows:

"Whereas, Henry Gardner hath been arrested upon a Bench Warrant duly issued out of said Court, and hath this day been brought before said Court and is now in the custody thereof; and whereas, an order hath been duly made by said Court that said defendant give bail in the sum of Nine Thousand dollars, for his appearance, and that in default thereof he be committed to the County Jail of Multnomah County, Oregon, and whereas he hath not given bail as required by said order.

"Now, This Is to Command You, the said Marshal or Deputy, to take and keep and safely deliver the said defendant into the custody of the Keeper or Warden in charge of said Jail forthwith.

"And This Is to Command You, the said Keeper or Warden in charge of the said Jail, to receive from the said Marshal or Deputy the said defendant so committed as aforesaid, and him keep and imprison in accordance with said order till he shall give bail or till he be otherwise discharged by law. Hereof fail not at your peril."

Henry Gardner was held in jail by virtue of the process of the court and commitment above until he was released on January 26, 1951. This process holding Henry Gardner, the judgment debtor, in jail was not amended to conform to the order of the court filed January 25, purporting to have been signed eight days earlier (R. 17, 44). No other process issued and the commitment in default of bail was the process in effect when the appellant was tried for contempt of court on Monday, January 22 (R. 5, 29, 43). This commitment in default of bail does not by its terms prohibit the debtor from paying, nor the appellant from receiving money from the debtor, and there is no evidence of any obstruction of this process by the appellant.

If in the charge pronounced on January 22, accusing the appellant of obstructing process of the court, the Judge had in mind obstruction of the order filed on January 25, even so the appellant did only what it was his duty and right to do. Certainly is cannot be contempt for the client-judgment debtor to spend money in his pocket to purchase the undertaking which the court had ordered him to post as a condition to release from custody. It would be manifestly unjust to order a person to do a thing and at the same time to make compliance with the court's order punishable as contempt. That is undoubtedly the reason why alternative procedures are provided by the statutes. If it was not contempt for the debtor to spend his money for an undertaking, then it could not be contempt for the debtor's attorney to accept the money from his client for that purpose.

If, in pronouncing the charge of contempt, the Court had in mind that appellant had violated some order restraining the judgment debtor from disposing of his property not exempt from execution during the pendency of the proceeding, then the Court was laboring under a complete misapprehension. No such restraining order was in fact ever made in this case, nor would it be authorized by Section 6-1704, Appendix 2-G, under which the Court had announced the judgment creditor was proceeding (R. 21). As was pointed out in the case of *Ex Parte Buskirk*, 72 Fed. 14 (CCA 4, 1896), a federal court has no jurisdiction to punish as a contempt an act of disobedience to an order which the court intended to make, but which in fact was never made. Neither can the court make so punishable an act not forbidden by any order or decree at the time it was committed by afterwards entering an order forbidding such act.

If the Judge was attempting to vindicate the authority of the court outraged by some interference with property in *custodia legis*, then there must have been some reason why the money was in *custodia legis*. Although the person of an arrested judgment debtor is in custody of the law, the money in the prisoner's pocket is not in custody of the law until it is levied upon or seized by virtue of some process of the court, or unless operation of some Oregon statute should place that money constructively in custody of the court. None of the processes or orders discussed so far would operate to take into the custody of the law money on the person of the judgment debtor. No statute has come to our

attention which would operate under the facts of this case to place the debtor's money constructively in *custodia legis*.

Even when an arresting officer or jailer removes money from the person of a prisoner, that money should still be regarded as in the personal possession of the prisoner, and repeated cases have held application of such money by the sheriff to a writ of execution or attachment would be unlawful. *Commercial Exchange Bank v. McLeod*, 65 Iowa 665, 19 N.W. 329 (1884), *Dahms v. Sears, et al.*, 13 Or. 47, 11 P. 891 (1885); *Emmanuel v. Sichofsky*, 198 Cal. 713, 247 P. 205, 48 A.L.R. 580 (1926); *Coffee v. Haynes*, 124 Cal. 561, 57 P. 482 (1899).

In the *Dahms* case, which has been recognized as authority in Oregon since 1885, the court said, p. 56:

"I am of the opinion that property taken from a prisoner . . . is not subject to attachment or levy by virtue of an execution. The security of the public may justify the searching of a prisoner confined in prison upon criminal or even civil process, and the taking from him of any property in his possession that would aid him to make an escape. It would probably be regarded, under such circumstances as a reasonable search and seizure; but to allow private parties to take advantage of the circumstances in order that they may secure a personal benefit would be a violation of that faith which the commonwealth owes to persons held in custody under its authority and laws. It would lead to oppression and abuse. The object and purpose of an arrest under civil and criminal process would be perverted and schemes and devices be resorted to by importunate creditors to enforce a

payment of their demands that would outrage justice and the right to personal security."

Similarly, in the Emmanuel case, the court said, p. 715:

"From the authorities upon the subject it may be gathered as a general rule that, if money on the person of a prisoner when outside the prison walls is not subject to seizure, it is not subject to attachment or garnishment when it passes involuntarily from his possession to the custody of the officer appointed by law to take it into possession when such person enters as a prisoner within the walls. Public policy requires the adoption and maintenance of this rule. Were it otherwise it would lead to a grave abuse of criminal process. . . . It would tempt creditors whose *debtors keep their funds upon their persons, and thus beyond the reach of civil process*, to make unfounded criminal charges against their debtors and bring about their arrest and the transfer of their funds to the custody of the arresting officers, in order to make them reachable by the process of garnishment. It needs no citation of the cases to show that the general rule as thus broadly stated, is supported by the preponderance of authority. . . ."

As was pointed out in *Coffee v. Haynes*, 124 Cal. 561, 57 P. 482 (p. 567):

"The custody of the officer is not necessarily nor always the custody of the law."

ARGUMENT

THIRD SPECIFICATION OF ERROR: The Court's error in failing to conduct the contempt pro-

ceeding in accordance with mandatory procedural requirements renders the orders appealed from invalid.

Points and Authorities

(1) When the court proceeds *sua sponte* to vindicate the court's authority by prosecuting for contempt on charge of obstruction of process, the proceeding is for criminal contempt.

McCann v. New York Stock Exchange, 80 F. (2d) 211 (CCA 2, 1935).

(2) Failure to comply with the mandatory procedural requirements of Rule 42, Federal Rules of Criminal Procedure is reversible error.

Rule 42, Federal Rules of Criminal Procedure.

Western Fruit Growers, Inc. v. Gottfried, 136 F. (2d) 98 (CCA 9, 1943).

Duell v. Duell, 178 F. (2d) 683 (CA DC, 1949).

(3) Failure to notify appellant of the criminal nature of the proceedings until the trial was terminated was reversible error.

Western Fruit Growers, Inc. v. Gottfried, 136 F. (2d) 98 (CCA 9, 1943).

The character of the contempt proceeding under review, whether for civil or criminal, for direct or indirect contempt, determines what procedure the Court was bound to observe. By the criteria customarily considered in such matters, this was a criminal proceeding to punish an indirect contempt. It was brought *sua sponte*

and was conducted by the judge himself against a person not a party to the case giving rise to the act charged. The charge, "obstruction of the process of the Court" (R. 29), sounds in criminal, not civil contempt. The proceeding was not brought at the instance of a party to the principal case, and was not conducted by counsel for a party to that case. The orders pronounced by the Court (R. 29, 30) did not command the payment of any money to a party or his counsel as a remedial measure, but were punitive, calculated to vindicate the authority of the Court and to compel respect for its process. Judge Learned Hand reviewed the circumstances which indicate whether a contempt proceeding is to be regarded as civil or criminal. He pointed out in a scholarly opinion handed down in the case of *McCann v. New York Stock Exchange*, 80 F. (2d) 211 (CCA 2, 1935), that where the court proceeds *sua sponte*, without the assistance of any attorney, there can be little doubt that the proceeding is in criminal contempt. Certainly no judge would voluntarily take it upon himself to assume the place of counsel for a party and conduct civil contempt proceedings in behalf of an injured party to the cause, nor would he terminate civil contempt proceedings by the orders characteristic of a criminal proceeding.

To be valid, proceedings in criminal contempt must conform to the requirements of Rule 42, Federal Rules of Criminal Procedure, reprinted in Appendix 1-D. Rule 42(a) applies only to direct contempts, i.e., those committed in the actual presence of the court. Where, as in the case before us, contempt has not been committed in the presence of the court and evidence must be taken to

establish the contempt proceedings to punish, the indirect contempt must conform to Rule 42(b). The accused is entitled to notice of the criminal nature of the charge against him and the notice must state the essential facts constituting the criminal contempt. Furthermore, whether the notice is given orally by the judge in open court in the presence of the defendant, or by an order to show cause, or an order of arrest, the defendant must be allowed a reasonable time for the preparation of the defense. Rule 42(b) Federal Rules of Criminal Procedure, Appendix 1-D. Failure to comply with these procedural requirements is reversible error. *Western Fruit Growers, Inc. v. Gottfried*, 136 F. (2d) 98 (CCA 9, 1943); *Duell v. Duell*, 178 F. (2d) 683 (CA DC, 1949).

These mandatory procedural requirements of Rule 42(b) were completely ignored in the case before us. On Monday morning, January 22, 1951, when the appellant appeared in court in behalf of the arrested judgment debtor, he had no inkling that any contempt proceeding was in prospect. Leo McLean, United States Deputy Marshal, was called to testify concerning a sum of money found upon the judgment debtor when he was taken to jail (R. 24) and testified that he saw the debtor hand some money to his attorney and that he overheard a conversation about bail (R. 25). He testified further that the transaction with Mr. Murray occurred in the court room after the Judge had left the bench (R. 24). When the appellant took the witness stand, he was warned by the Court that anything he might say might be used against him (R. 27). During the course of this testimony, there was no suggestion that the Court was

trying the appellant for contempt of court. To the contrary, so far as the appellant knew, the evidence was offered and received upon the issues in the case of *Hall v. Gardner*.

Appellant presented a motion on behalf of his client and was utterly astonished to hear the Court reply by pronouncing a charge of contempt (R. 29). When the appellant asked for time to answer the charge, the Court neither allowed him time to prepare his defense, as required by Rule 42(b), nor did he allow him any hearing upon the charge then and there, but proceeded instantly to pronounce the sentence of contempt and punishment by reprimand (R. 29, 30).

In view of the Court's failure to state the charge against appellant, it cannot be contended that the testimony taken earlier was any hearing at all upon the contempt issue. Unless a defendant is apprised of the charge before testimony is taken, he has no opportunity to determine for what purpose the evidence is being offered and received nor what evidence may be material, competent or relevant to the unsuspected issues. Failure to notify a defendant of the criminal nature of the proceeding until the trial was in progress was held to be reversible error in the case of *Western Fruit Growers, Inc. v. Gottfried*, 136 F. (2d) 98 (CCA 9, 1943). In the case before us, the Court's abrupt procedure deprived the appellant of any opportunity to defend himself.

Conviction without a fair hearing is abhorrent to the fundamental principles of justice and cannot stand. Therefore, it is respectfully submitted that the irregu-

larities in procedure discussed above render invalid the Court's finding that appellant was guilty of contempt of court, and the orders based thereon should be set aside.

ARGUMENT

FOURTH SPECIFICATION OF ERROR: The District Court erred in ordering appellant committed to the custody of the United States Marshal, subject to the condition that the appellant pay to the Marshal the sum of \$200.

Points and Authorities

(1) It is not within the jurisdiction of the Committee on Discipline of the Bar to review the Court's decision in any matter of law.

(2) Unless corrected by the appellate court, the erroneous interpretation of the doctrine of *custodia legis* enforced by the court below would be a dangerous precedent.

From the discussion of the merits of this case presented under the third specification of error, it should be clear that the transaction between the appellant and his client on January 17, 1951, did not involve any money held in *custodia legis*. Henry Gardner was entitled to pay the \$200, and his attorney was entitled to accept the money. When the client subsequently signed an agreement authorizing application of the \$200 on account of attorney's fees (R. 28), title to the money was transferred to appellant and his associates in the case.

Therefore, the effect of the order requiring appellant to pay \$200 to the United States Marshal as a condition to release from custody was a conversion of appellant's money. The Court had no right to force the appellant, on pain of commitment, to hand over to the Marshal money which belonged to himself and his associates.

The appellant had committed no offense which would justify punishment by a fine, and there is nothing to indicate that the Court intended to levy one. The appellant was not ordered to pay the money to the Clerk of the Court, as would be customary if payment of the \$200 was imposed as a fine. The Court appears rather to have viewed his command as an order of restitution of money taken wrongfully from the custody of the Marshal (R. 26). Accordingly, it is respectfully submitted that the erroneous order should be vacated and the United States Marshal instructed to return appellant's \$200 to him taken from him by compulsion.

ARGUMENT

FIFTH SPECIFICATION OF ERROR: The District Court erred in punishing the appellant by administering a public reprimand.

Points and Authorities

(1) Where the acts done by an attorney on behalf of his client are strictly within the rights of his client and himself and in no way open to criticism from a pro-

fessional standpoint, it is error to reprimand him in any manner whatsoever.

McCall Co. v. Bladworth, 290 Fed. 365 (CCA 2, 1923).

In the case of *McCall Company v. Bladworth*, 290 F. 365, (CCA 2, 1923), an attorney appealed to the Court of Appeals for the Second Circuit from a reprimand unjustly administered at the close of a proceeding for contempt. In discussing that error, the appellate court said: "In contempt proceedings, the court has wide latitude in respect of punishment, but plainly no punishment can be administered unless the person upon whom it is attempted to visit the punishment has been found guilty of contempt." (p. 368). In the case at bar, it should be abundantly clear that any finding that appellant had been guilty of contempt was erroneous, both on the merits and as a procedural matter. Therefore, it is respectfully urged, the undeserved punishment should be countermanded. As the Court observed in *McCall Company v. Bladworth*, *supra*, "A member of the bar is properly sensitive of his reputation, and a lawyer with the proper conception of his duty to the court naturally feels keenly the effect of an undeserved reprimand." (p. 368). Its sting is lasting, and makes continuing repercussions upon the lawyer's practice, with consequent damage to his earning power.

Unlike punishment by imprisonment, which cannot be corrected by an appellate court once the sentence has been served, the effect of punishment by underserved reprimand can be counteracted by pronouncement from

the appellate court exonerating the appellant from blame.

The decision of the court below was predicated upon the assumption that from the moment a prisoner is placed in custody of the United States Marshal by the court, all funds on the prisoner's person are instantly transferred into custody of the law. Hence, before the prisoner can rightfully spend any of the money for any purpose whatsoever, he must obtain permission through the machinery of the court. Were the prisoner to spend any of his money without first going through this procedure, he and the person who should accept the money would be guilty of contempt of the court.

Under this new interpretation of the doctrine of *custodia legis*, which goes immeasurably further than any pronounced in the past, the prisoner would be required to obtain permission of the court before he had any right to employ or pay counsel, or to post bail, or, if we carry this idea to its logical conclusion, to purchase even a package of cigarettes.

Until corrected by the appellate court, the pronouncements of the United States District Court are authoritative and establish the rule in the district. It is not within the jurisdiction of the Committee on Discipline of the Bar appointed by the court to review the court's decision on any matter of law. Unless the United States Court of Appeals will correct the erroneous interpretation of the doctrine enforced by the court below, the case at bar will establish a precedent to justify similar violations of a prisoner's right to spend his own funds

in the future. For the guidance of the profession, the arresting officers and prisoners placed in custody, it is important that the United States Court of Appeals correct the errors committed by the Court in the present case and pronounce the proper interpretation to be given the doctrine of *custodia legis*.

Respectfully submitted,

WILLIAM B. MURRAY,
Attorney for Appellant.

APPENDIX 1-A

Title 18, U. S. Code, Section 401:

“Section 401. Power of court.—A court of the United States shall have power to punish by fine or imprisonment, at its discretion, such contempt of its authority, and none other, as—

“(1) Misbehavior of any person in its presence or so near thereto as to obstruct the administration of justice;

“(2) Misbehavior of any of its officers in their official transactions;

“(3) Disobedience or resistance to its lawful writ, process, order, rule, decree, or command.”

APPENDIX 1-B

Title 28, U. S. Code, Section 2007:

“2007. Imprisonment for debt.—(a) A person shall not be imprisoned for debt on a writ of execution or other process issued from a court of the United States in any State wherein imprisonment for debt has been abolished. All modifications, conditions, and restrictions upon such imprisonment provided by State law shall apply to any writ of execution or process issued from a court of the United States in accordance with the procedure applicable in such State.

“(b) Any person arrested or imprisoned in any State on a writ of execution or other process issued from any

court of the United States in a civil action shall have the same jail privileges and be governed by the same regulations as persons confined in like cases on process issued from the courts of such State. . . .”

APPENDIX 1-C

Rule 69(a), Federal Rules of Civil Procedure:

“69. Execution—(a) In general. Process to enforce a judgment for the payment of money shall be a writ of execution, unless the court directs otherwise. The procedure on execution, in proceedings supplementary to and in aid of a judgment, and in proceedings on and in aid of execution shall be in accordance with the practice and procedure of the state in which the district court is held, existing at the time the remedy is sought, except that any statute of the United States governs to the extent that it is applicable. . . .”

APPENDIX 1-D

Rule 42, Federal Rules of Criminal Procedure:

“Rule 42. Criminal contempt.—(a) Summary disposition.—A criminal contempt may be punished summarily if the judge certifies that he saw or heard the conduct constituting the contempt and that it was committed in the actual presence of the court. The order of contempt shall recite the facts and shall be signed by the judge and entered of record.

“(b) Disposition upon notice and hearing.—A criminal contempt except as provided in subdivision (a) of this rule shall be prosecuted on notice. The notice shall state the time and place of hearing, allowing a reasonable time for the preparation of the defense, and shall state the essential facts constituting the criminal contempt charged and describe it as such. The notice shall be given orally by the judge in open court in the presence of the defendant or, on application of the United States attorney or of an attorney appointed by the court for that purpose, by an order to show cause or an order of arrest. . . .”

APPENDIX 2-A

Oregon Constitution, Article I, Section 19:

“§ 19. Imprisonment for debt: Fraud on part of debtor: Absconding. There shall be no imprisonment for debt except in case of fraud or absconding debtors.”

APPENDIX 2-B

Section 6-1101, O.C.L.A.:

“§ 6-1101. Kinds of execution. There shall be three kinds of executions; one against the property of the judgment debtor, another against his person, and the third for the delivery of the possession of real or personal property, or such delivery with damages for withholding the same.”

APPENDIX 2-C**Section 6-1102, O.C.L.A.:**

“§ 6-1102. Issuance of the writ: Contents. The writ of execution shall be issued by the clerk and directed to the sheriff. It shall contain the name of the court, the names of the parties to the action, and the title thereof; it shall substantially describe the judgment, and if it be for money, shall state the amount actually due thereon, and shall require the sheriff substantially as follows:

“(1) If it be against the property of the judgment debtor, and the judgment directs particular property to be sold, it shall require the sheriff to sell such particular property and apply the proceeds as directed by the judgment; otherwise, it shall require the sheriff to satisfy the judgment, with interest, out of the personal property of such debtor, and if sufficient personal property cannot be found, then out of the real property belonging to him on the day when the judgment was docketed in the county, or at any time thereafter;

“ . . .

“(3) If it be against the person of the judgment debtor, it shall require the sheriff to arrest such debtor and commit him to the jail of the county until he shall pay the judgment, with interest, or be discharged according to law;

“ . . . ”

APPENDIX 2-D**Section 6-1107, O.C.L.A.:**

“§ 6-1107. Execution against person of debtor. If the action be one in which the defendant might have been arrested, as provided by section 7-301, an execution against the person of the judgment debtor may be issued to any county within the state after the return of the execution against his property unsatisfied in whole or in part, as follows:

“ . . .

“(2) When no such cause of arrest appears from the record such execution may issue for any of the causes prescribed in section 7-301, that may exist at the time of the application therefor, upon leave of the court or judge thereof;

“ . . .

“(4) When execution is issued against the person of the defendant by leave of the court, it shall be applied for and allowed in the manner provided in section 7-302, for allowing a writ of arrest, except that the undertaking need not be for an amount exceeding the judgment. A defendant arrested on execution, who has not been arrested provisionally, may at any time be discharged from such arrest for the causes and in the manner provided in sections 7-323 and 7-324, for the discharge of a defendant who has been provisionally arrested.”

Section 7-301, O.C.L.A.:

“§ 7-301. When defendant may be arrested. No per-

son shall be arrested in an action at law, except as provided in this section. The defendant may be arrested in the following cases:

“(1) In an action for the recovery of money or damages on a cause of action arising out of contract, when the defendant is not a resident of the state, or is about to remove therefrom, or when the action is for an injury to person or character, or for injuring or wrongfully taking, detaining, or converting property.

“ . . .

“ . . .

“ . . .

“(5) When the defendant has removed or disposed of his property, or is about to do so, with intent to defraud his creditors.

“But no female shall be arrested in any action, except for an injury to person, character, or property.”

APPENDIX 2-E

Section 7-302, O.C.L.A.:

“§ 7-302. Proceeding to obtain arrest. The mode of proceeding to obtain the arrest of the defendant for any of the causes specified in section 7-301, shall be as provided in this section:

“(1) At any time after the commencement of an action at law, and before judgment, the plaintiff in such action shall be entitled to a writ of arrest for such defendant whenever he shall make and file with the clerk

of the court in which such action is commenced, or is at the time pending, an affidavit that the plaintiff has a sufficient cause of action therein, and that the case is one of those mentioned in section 7-301, and shall also make and file with such clerk an undertaking, with one or more sureties, in a sum not less than \$100, and equal to the amount for which plaintiff prays judgment. Such undertaking shall be conditioned that the plaintiff will pay all costs that may be adjudged to the defendant, and all damages which he may sustain by reason of the arrest, if the same be wrongful or without sufficient cause, not exceeding the amount specified in the undertaking;

“(2) The affidavit may be either positive or upon information and belief; but, if the latter, it shall state the nature and sources of such information upon which the belief is founded. The plaintiff shall also file with his undertaking the affidavits of the sureties therein, from which it must appear that such sureties are residents of the state, and that they are, taken together, worth double the amount of the sum specified in the undertaking over all debts and liabilities and property exempt from execution. No person not qualified to become bail upon arrest is qualified to become surety in an undertaking for an arrest;

“(3) The writ of arrest shall be issued by the clerk, and shall require the sheriff of any county where the defendant may be found, forthwith to arrest him and to hold him to bail in the amount specified in the undertaking, and that in default thereof, to keep him in cus-

tody until discharged by law, and to return the writ to the clerk from whom it issued, with his doings indorsed thereon, when required by the plaintiff at any time before the defendant may be arrested, or afterwards whenever the defendant shall have been discharged from the arrest on bail or otherwise;

“(4) The plaintiff shall deliver or cause to be delivered to the sheriff, with the writ, a copy of the affidavit upon which the writ was issued, subscribed by himself or attorney. The sheriff, upon delivery of the writ, shall indorse thereon the date of the receipt, and upon the arrest of the defendant, shall deliver to him a copy of the writ, and such copy of the affidavit. The sheriff shall execute the writ by arresting the defendant and keeping him in custody, until discharged by law.”

APPENDIX 2-F

Section 6-1701, O.C.L.A.:

“§ 6-1701. Proceedings to require debtor to appear. Place of appearance. After the issuing of an execution against property, and upon filing by the plaintiff, or some one on his behalf, of an affidavit stating in general terms that the plaintiff believes that the judgment debtor has property liable to execution which he refuses to apply toward the satisfaction of the judgment, such court or judge may, in its discretion, by an order, require the judgment debtor to appear and answer under oath concerning any property or interest in any property that he may have or claim, before such court or judge,

or before a referee appointed by such judge or court, at a time and place specified in the order. It shall not be necessary to specify any particular property in said affidavit, but a general averment shall be sufficient; provided, that no judgment debtor may be required to attend hereunder before a judge or referee out of the county in which he resides or may be found, at the time of the service of the order requiring his appearance, unless the place where the judgment debtor is to appear is not more than 20 miles from the residence of said judgment debtor."

Section 6-1702, O.C.L.A.:

"§ 6-1702. Examination of judgment debtor. On the appearance of the judgment debtor, he may be examined on oath concerning his property. His examination, if required by the plaintiff in the writ, shall be reduced to writing, and filed with the clerk by whom the execution was issued. Either party may examine witnesses in his behalf, and if by such examination it appear that the judgment debtor has any property liable to execution, the court or judge before whom the proceeding takes place, or to whom the report of the referee is made, shall make an order requiring the judgment debtor to apply the same in satisfaction of the judgment, or that such property be levied on, by execution, in the manner and with the effect as provided in this title, or both, as may seem most likely to effect the object of the proceeding."

Section 6-1703, O.C.L.A.:

"§ 6-1703. Restraining disposal of property: Punish-

ing disobedience of orders. At the time of allowing the order prescribed in section 6-1701, or at any time thereafter pending the proceeding, the court or judge may make an order restraining the judgment debtor from selling, transferring, or in any manner disposing of any of his property liable to execution, pending the proceeding. Disobedience to any order or requirement authorized by sections 6-1701, 6-1702 and 6-1703, on the part of the judgment debtor, may be punished as for a contempt."

APPENDIX 2-G

Section 6-1704, O.C.L.A.:

"§ 6-1704. Arrest of judgment debtor: Undertaking. Instead of the order requiring the attendance of the judgment debtor, as provided in the last two sections, the court or judge may, upon proof by affidavit of a party, or otherwise to his satisfaction, that there is danger of the debtor leaving the state, or concealing himself therein, and that there is reason to believe he has property which he unjustly refuses to apply to such judgment, issue a warrant requiring the sheriff of any county where such debtor may be to arrest him and bring him before the court or judge; upon being brought before the court or judge, he may be examined on oath, and if it then appear that there is danger of the debtor leaving the state, and that he has property which he has unjustly refused to apply to such judgment, he may be ordered to enter into an undertaking, with one or more

sureties, that he will from time to time attend before the court or judge, as may be directed, and that he will not, during the pendency of the proceedings, dispose of any portion of his property not exempt from execution. In default of entering into such undertaking, he may be committed to the jail of the county by warrant of the judge."

APPENDIX 3

Excerpts from "Blackstone's Commentaries on the law, edited by Bernard Gavit, (1941) Book 3.

Appendix 3-A, pp. 718-719, CAPIAS AD SATISFACIENDUM:

"Its Intent. The intent of it is to imprison the body of the debtor, till satisfaction be made for the debt, costs and damages. . . ."

"Estops other Process. This writ of *capias ad satisfaciendum* is an execution of the highest nature, inasmuch as it deprives a man of his liberty, till he makes the satisfaction awarded, and therefore when a man is once taken in execution upon this writ, no other process can be sued out against his lands or goods. . . ."

"Language of the Writ. The writ is directed to the sheriff, commanding him to take the body of the defendant and have him at Westminster on a day therein named, to make the plaintiff satisfaction for his demand. And if he does not then make satisfaction, he must remain in custody, until he does."

Appendix 3-B, p. 721, FIERI FACIAS:

“*Form of Writ.* The sheriff is commanded, *quod fieri faciat de bonis*, that is, he cause to be made of the goods and chattels of the defendant the sum or debt recovered. . . .”

Appendix 3-C, p. 723, EXTENT, OR EXTENDI FACIAS:

“When Allowed: This writ issues upon some prosecutions given by statute, as in the case of recognizances for debt acknowledged on statutes merchant or staple; upon forfeiture of these, the body, lands and goods may be taken in execution, to compel the payment of the debt.”



No. 12588.

IN THE

United States Court of Appeals

FOR THE NINTH CIRCUIT

JUAN BAUTISTA PAIZ-NUNEZ,

Appellant,

vs.

UNITED STATES OF AMERICA,

Appellee.

APPELLEE'S BRIEF.

ERNEST A. TOLIN,

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No. 12588.

IN THE

United States Court of Appeals

FOR THE NINTH CIRCUIT

JUAN BAUTISTA PAIZ-NUNEZ,

Appellant,

vs.

UNITED STATES OF AMERICA,

Appellee.

APPELLEE'S BRIEF.

Jurisdiction.

Appellee contends that the District Court had jurisdiction of the matter below by virtue of Title 18, Section 3231, United States Code, and by virtue of Title 8, Section 144, United States Code, and by virtue of the Indictment set out on pages 2 and 3 of the record herein.

ARGUMENT.

Summary.

To "bring" an alien "into the United States" neither begins nor ends with the mere crossing of the exact boundary line.

"Successful to consummate the unlawful introduction of the prohibited aliens required more than the mere bringing of them across the line. It was necessary to evade the immigration officials by transporting them into the interior and concealing their identity." (*Lew Moy v. U. S.*, 237 Fed. 50, 52.)

As stated in appellant's brief, the question presented is whether or not the appellant did *bring* the aliens *into the United States* within the meaning of the statutes. The emphasis is added by appellee because it is the words "bring into the United States" appearing as they do in the statute (Title 8, Sec. 144, U. S. Code) and the indictment [R. p. 2] which must be interpreted by the court as they apply to the facts of this case.

That the attempt was to get the aliens "into the United States" and that they did get "into the United States" as the word "into" has been judicially interpreted (*U. S. v. Collins*, 254 Fed. 869, 872) and as it is used in common parlance, cannot* be denied. Their destination was Los Angeles [R. p. 5], and they were apprehended 40 miles north of Calexico [R. p. 6].

Also the driving performed by the defendant was that "relatively active conduct which affects a relatively passive immigrant . . ." which is set forth as being the meaning of "bring into" in *McFarland v. United States*, 19 F. 2d 805, at 806. As the *McFarland* case says of the words "bring into" "they are appropriate to one who transports . . ."

The position that appellant takes is, I take it, that since the "relatively active conduct" of the "one who transports"

*Webster's New International Dictionary, 2nd Ed. INTO. Primarily, *into* denotes motion so directed as to terminate, if continued, when the position denoted by *in* is reached. Various applications are: 1. Indicating place entered or that from the outside of which there is passing to the interior parts; usually following verbs denoting motion; as come *into* the house; one stream falls or runs *into* another; a journey *into* Spain; but used also where the idea of motion is only implied or suggested; as, foreign imports *into* America; the mountains merge *into* the plain. * * *

in this case occurred after the aliens had actually passed over the boundary line between Mexico and the United States, therefore, while he did “bring” them from Calexico to a point 40 miles north of Calexico and while they had at that time gotten “into” the United States, it was the aliens and not the defendant who had brought the aliens into the United States. This overlooks the previous negotiation between the alien and defendant in Mexico and the promptness with which their entering followed.

This boils down to saying that one can only “bring” an alien “into” the United States by performing the act of moving his body across the boundary line itself. Bearing in mind that a line has “length but no breadth or thickness” (*I. T. C. Rubber Co. v. Essex Rubber Co.*, 270 Fed. 593, 605) not only in its geometric sense but also in the ultimate extension of this argument, the appellant ends up with an absurd proposition. That is, that in spite of all the complex machinations that can go into smuggling operation, it is only the act of moving an alien’s body for the distance of its own thickness as it passes over this mystic line that constitutes bringing the alien into the United States. If this act be missing, the smuggler did not “bring into the United States” the alien within the terms of the law.

He may move the alien from place to place below the border, locate the hole in the fence, drive him to the fence, point out the hole, watch him as he crawls through, drive around to the United States side and pick him up and drive him within the States to a point beyond the Immigration Service’s check points, but so long as he

did not move him over that line he did not “bring” him “into the United States.”

The *McFarland* case, which appellant relies on, itself disavows this theory of the test being whether the alien is moved over the line.

“An alien may get into the United States in either of two ways: He may come up to the established point of inspection and submit himself for examination, and for admission or rejection, or he may endeavor to avoid this examination and come into or land in the United States surreptitiously. The statute has its full normal field of application, if it is restricted to entry at other than the inspection points, to that ‘landing’ or ‘bringing’ which escapes inspection. One who merely crosses the international line on a boat, and then crosses the dock to the immigration office for examination, has not come into the United States. He has neither been landed in, nor been brought in, under any accuracy of definition. He is subject to exclusion, not deportation. Even if he is then passed and walks in, so that he has fully entered, he has not been brought in. He is the actor, not the object of another’s action.” (*McFarland v. U. S.*, 19 F. 2d 805, 806.)

This passage, while it is preoccupied with the question of what degree of activity is required rather than the question of where the activity must occur, is typical of the interpretation of immigration statutes. They are interpreted in light of their obvious purpose, that is, the prevention of the establishment of residence by alien persons who for one reason or another are considered undesirable.

As far back as 1820, Marshall, sitting as Circuit Justice, decided that where negro seamen were transported into a United States port as part of the crew of a vessel with the intent that they return on that vessel, the captain of the vessel did not “bring” them “into the United States” as intended by a comparable statute.* (*Wilson v. United States*, Fed. Case No. 17,846.)

Exactly the same reasoning is followed under a similar statute by the Supreme Court in *Taylor v. United States*, 207 U. S. 120 at pages 124, 125 (Holmes, J.):

“The phrase which qualifies the whole section is, ‘bringing an alien to the United States.’ It is only ‘such’ officers of ‘such’ vessels that are punished. ‘Bringing to the United States,’ taken literally and nicely, means, as a similar phrase in §8 plainly means, transporting with intent to leave in the United States and for the sake of transport—not transporting with intent to carry back, and merely as incident to employment on the instrument of transport . . .”

In *Ex parte Chow Chok, et al.*, 161 Fed. Rep. 627 at 630, 631, the Court interpreted the words “entry” and

*“ . . . no master or captain of any ship or vessel, or any other person, shall import or bring, or cause to be imported or brought, any negro, mulatto, or other person of colour, not being a native, a citizen, or registered seaman, of the United States, or seamen, natives of countries beyond the Cape of Good Hope, into any port or place of the United States, which port or place shall be situated in any state, which, by law, has prohibited, or shall prohibit, the admission, or importation of such negro, mulatto, or other person of colour. . . .” Act of Congress of Feb. 28, 1803.

“entrance” in the Chinese Exclusion Act* words as susceptible of limitation to line crossing as “bring into,” the Court states:

“ ‘Enter’ means *more than the mere act of crossing the border line*. Those who seek to enter in the sense of the law, and those the probing of the law seeks to prevent from entering, are those who come to stay permanently, or for a period of time, or to go at large and at will within the United States. These persons, on entering, were at once surrounded by officers, silently taken in charge, in effect arrested, and from that time effectually deprived of their liberty and prevented from going at large within the United States. They had no more actually entered the United States than has a Chinese person who escapes from a detention house while awaiting a determination of his right to enter, and were no more ‘found unlawfully in the United States’ within the true intent and meaning of the Chinese exclusion acts than would be a Chinese person, who, on being actually arrested and physically seized on the exact boundary line, should escape and succeed in running the distance of a mile into the United States and concealing himself for a day or week before being rearrested. . . .” (Emphasis supplied.)

It is to be noted that exactly the same view is taken under the immigration laws and one is held for “exclusion” rather than “deportation” even after he may be over the actual boundary line. In fact all inspection and interrogation at authorized inspection points is carried on appreciably within the boundary lines of the United States.

*Act of July 5, 1884, 23 Stats. 117.

The reasoning of the 8th Circuit in *Lew Moy v. U. S.*, (1916), 237 Fed. 50 at 52, while applied to a charge of conspiracy to violate the comparable section of the Chinese Exclusion Act,* is as applicable to a substantive count. There the Court said, at page 52:

“It is also urged that the conspiracy was at an end the instant the Chinese whose illegal entry was procured and facilitated were brought across the international boundary, and therefore the trial court erred in admitting in evidence the subsequent acts and declarations of one conspirator against the others. This is too narrow a view of the crime charged. Successfully to consummate the unlawful introduction of the prohibited aliens required more than the mere bringing of them across the line. It was necessary to evade the immigration officials by transporting them into the interior and concealing their identity. The subsequent assistance by the defendants to that end may well have been an essential part of the unlawful project.”

And that reasoning is followed exactly in *Smith v. U. S.* (5 Cir.), 24 F. 2d 907, where on a charge of violating the section here being considered, the evidence was sufficient to hold a defendant who was shown merely to have waited near the point of illegal landing with an automobile, and thereafter to have driven some of the aliens to another point within the United States.

The facts set forth in Part II of appellant's argument (App. Br. p. 6) while not a part of the record are too well known not to be recognized by the Court and they

*“ . . . bring by land into the United States.” 23 Stat. 117, Sec. 11.

are the underlying facts which were true when this statute and its predecessor statutes were enacted. It is in light of these facts that the meaning of the words must be found.

A smuggler of dutiable goods has not accomplished his purpose when he throws the goods over the boundary line. A smuggler of aliens has no more accomplished his purpose when the alien is barely over the line into the United States. As appellant points out at page 7 of his brief, there is no trick to getting one's self into the states. It is "necessary to evade the immigration officials by transporting [the aliens] into the interior." *Lew Moy v. U. S.*, *supra*.

These have always been the facts in the United States, and are, if anything, less true today than when this statute was first passed.

Respectfully submitted,

ERNEST A. TOLIN,

United States Attorney,

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Assistant United States Attorney,

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Assistant United States Attorney,

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No. 12856

United States
Court of Appeals
for the Ninth Circuit.

OREGON CHROME MINES, INC.,

Petitioner,

vs.

COMMISSIONER OF INTERNAL REVENUE,

Respondent.

Transcript of Record

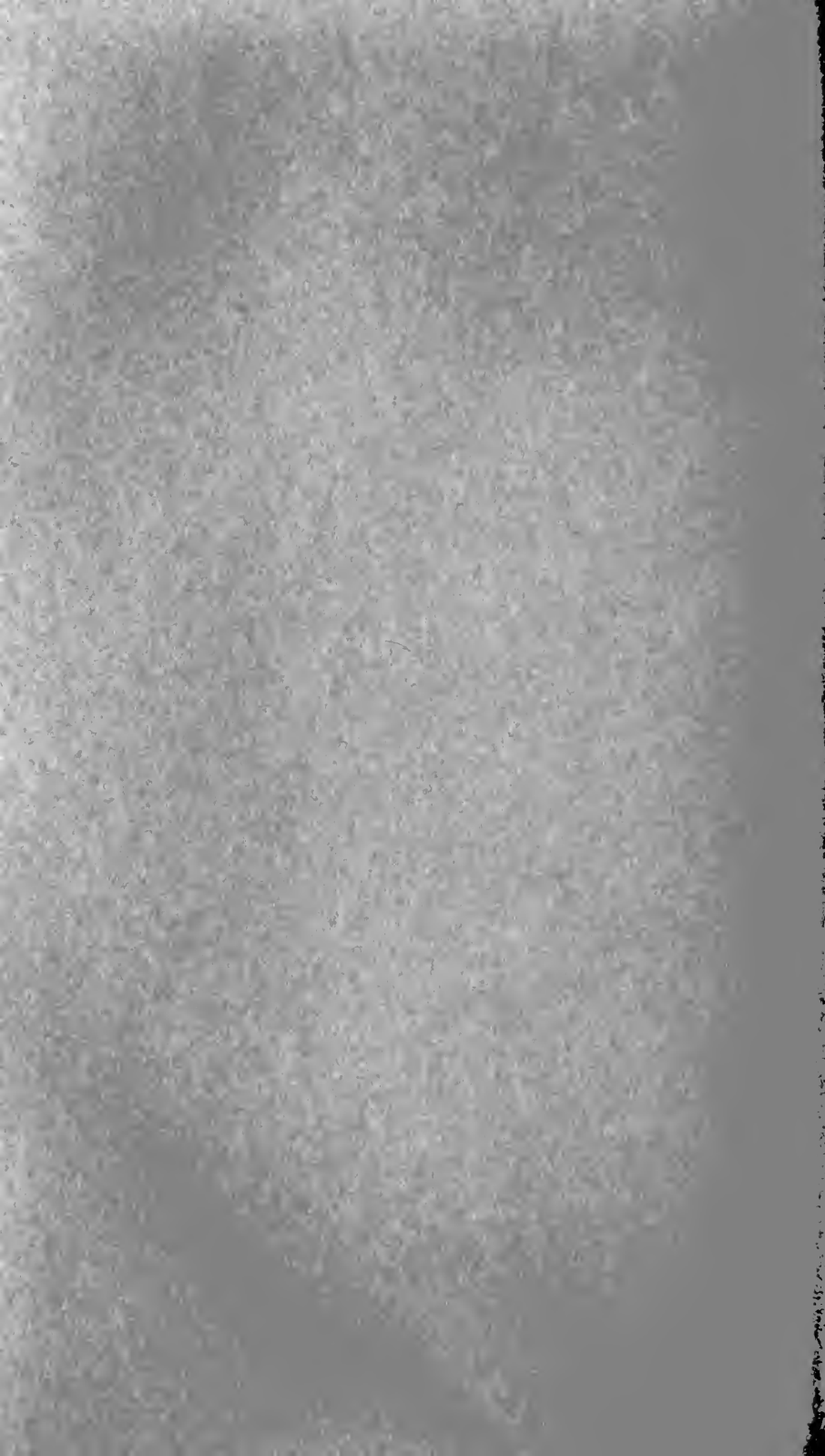
Petition to Review a Decision of the Tax Court
of the United States.

FILED

MAR 27 1951

PAUL P. O'BRIEN,

CLERK



No. 12856

United States
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[Clerk's Note: When deemed likely to be of an important nature, errors or doubtful matters appearing in the original certified record are printed literally in italic; and, likewise, cancelled matter appearing in the original certified record is printed and cancelled herein accordingly. When possible, an omission from the text is indicated by printing in italic the two words between which the omission seems to occur.]

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APPEARANCES

For Petitioner:

WM. B. MURRAY, ESQ.

For Respondent:

R. G. HARLESS, ESQ.,

R. C. WHITLEY, ESQ.



The Tax Court of the United States

Docket No. 18515

OREGON CHROME MINES, INC., a Corporation,
tion,

Petitioner,

vs.

COMMISSIONER OF INTERNAL REVENUE,
Respondent.

Transferred to Judge Hill

DOCKET ENTRIES

1948

May 17—Petition received and filed. Taxpayer notified. Fee paid.

May 19—Copy of petition served on General Counsel.

July 15—Answer filed by General Counsel.

July 15—Request for hearing in Portland, Oregon, filed by General Counsel.

July 20—Notice issued placing proceeding on Portland, Oregon, calendar. Service of answer and request made.

1949

Aug. 22—Hearing set October 24, 1949, Portland, Oregon.

Oct. 26 &

27—Hearing had before Judge Arundell, on merits. Motion of petitioner to consolidate with dkt. 23902, granted. Motion to file amended petition, amended petition, amended answer, stipulation of facts, (mo-

1949

tion granted, copies served), filed at hearing. Briefs 12/12/49. Replies January 6, 1950.

Nov. 17—Transcript of hearing 10/26 and 27/49 filed.

Dec. 12—Brief filed by taxpayer. Copy served 12/13/49.

Dec. 12—Brief filed by General Counsel.

1950

Oct. 4—Findings of fact and opinion rendered, Hill, J. Decision will be entered under rule 50. Copy served.

Nov. 7—Respondent's computation filed.

Nov. 10—Hearing set Nov. 29/50 on respondent's computation.

Nov. 29—Hearing had before Judge Tietjens, on settlement, referred to Judge Hill.

Nov. 30—Decision entered, Black, J., Div. 15.

1951

Jan. 22—Petition for review by U. S. Court of Appeals, 9th Circuit, filed by taxpayer.

Jan. 22—Proof of service of petition for review acknowledged by General Counsel Jan. 3, 1951.

Jan. 22—Statement of points with proof of service 1/3/51 filed by taxpayer.

Jan. 22—Designation of record with proof of service 1/3/51 thereon filed by taxpayer.

Jan. 23—Proof of service of petition for review, statement of points, and designation of record filed.

[Title of Tax Court and Cause.]

AMENDED PETITION

The above-named petitioner hereby petitions for a redetermination of the deficiency set forth by the Commissioner of Internal Revenue, in his notice of deficiency, Seattle Division, 305 A Jones Building, IT:90D:KLW, dated February 18, 1948, and as a basis for his proceeding alleges as follows:

I.

The petitioner is a corporation, duly organized and existing under the laws of the State of Oregon, with its principal office at 3601 N.E. Union Avenue, Portland, Oregon. The return for the period here involved was filed with the collector for the district of Oregon.

II.

The notice of deficiency (a copy of which is attached and marked Exhibit A) was mailed to the petitioner on February 18, 1948.

III.

The taxes in controversy are income tax and declared value excess profits tax and excess profits tax for the calendar year 1944, in the amounts of \$875.57 income tax, \$2,651.96 declared value excess profits tax, and \$15,404.74 excess profits tax.

IV.

The determination of tax set forth in the said notice of deficiency is based upon the following errors:

1) The Commissioner of Internal Revenue erroneously failed and refused to hold taxpayer exempt from excess profits tax in the sum of \$15,404.74, and to find that taxpayer was a domestic corporation engaged in the mining of chromite, with its entire net income attributable to such mining in the United States.

2) The Commissioner erroneously limited depletion to percentage depletion of \$5,506.84, instead of cost depletion of \$24,000.00; and the Commissioner failed to recognize that the cost of taxpayer's mine was \$48,000.00, and not \$1,525.00, and failed to make reasonable allowance for depletion according to the peculiar conditions of taxpayer's case.

3) The Commissioner erroneously held that the sum of \$2,491.85 paid by taxpayer for services rendered to it was not deductible, inasmuch as the persons to whom said money was paid had an economic interest in the mineral in place, and the Commissioner erroneously added the \$2,491.85 to taxpayer's income for the year 1944.

V.

The facts upon which the petitioner relies as the basis for this proceeding are as follows:

1) The taxpayer is a corporation organized, subsisting and existing under and by virtue of the laws of the State of Oregon, with authorized capital 48,000 \$1.00 par value shares.

2) Continuously since its organization, and dur-

ing 1944 and subsequently thereto, the taxpayer has been engaged as a domestic corporation in mining chromite, and all of the corporation's income has been attributable to such mining in the United States.

3) On or about July 2, 1941, the taxpayer borrowed \$5,000.00, which was expended in driving a tunnel for the purpose of developing chromite ore. Shipments were made from the mine. This work was done by day labor until about the 14th day of April, 1942, when the taxpayer entered into a written agreement with William S. Robertson, mining engineer.

4) After said agreement was entered into, the corporation's mining operations were carried on by contract and lease with said mining operator. A percentage of the ore or its value was agreed to belong to the operator supplying the labor for mining the ore, and a percentage was to belong to the taxpayer.

5) This contract for the extraction of ore on a percentage basis was subsequently modified on August 26, 1942, February 5, 1943, April 1, 1944, July 16, 1944, June 25, 1945, December 4, 1945, April 3, 1947, and May 2, 1947.

6) The modifications of said agreement did not materially change the basic arrangement concerning a division of the ore extracted, but related to the percentage each was to receive.

7) About June 7, 1944, the taxpayer launched a

program of prospecting for deposits of chromite and a program for the acquisition of other chromite deposits in southern Oregon and northern California.

8) On July 10, 1944, the taxpayer authorized the expenditure of \$3,000.00 for the purpose of prospecting, exploring and acquiring additional chromite ore and claims and to engage a mining engineer to make surveys thereof.

9) Although taxpayer sought to prospect, explore and acquire other deposits of chromite, nevertheless none were acquired. Some were inspected, prospected and rejected, and the money thus appropriated was expended.

10) The rock in place became ore during the extraordinary economic demand for chrome during the war emergency and the rock ceased to be ore when the emergency came to an end.

11) The ore in said mine was mined and sold and more than fifty per cent of the ore originally in said mine was removed during the year 1944 and another fifteen per cent of the original amount was removed in the year 1945, thus depleting the mine.

12) The discovery, locating and prospecting of the mine was done and financed in part by Max Krueger, Sig Dillsheimer and J. C. Haas, E.M.

13) The mine consists of claims known as Agnes No. 1 to Agnes No. 7, inclusive, Township 37 South, Range 9, West of the Willamette Meridian, about 16 miles from Selma on Oak Flat on the easterly

side of the Illinois River, Josephine County, Oregon. These claims were located in the name of Sig Dillsheimer, as appears of record in the Mining Records of Josephine County, Oregon, as follows:

Agnes No. 1, Volume 39, page 439, Jan. 5, 1940

Agnes No. 2, Volume 40, page 263, Oct. 24, 1940

Agnes No. 3, Volume 40, page 264, Oct. 24, 1940

Agnes No. 4, Volume 40, page 265, Oct. 24, 1940

Agnes No. 5, Volume 40, page 266, Oct. 24, 1940

Agnes No. 6, Volume 40, page 267, Oct. 24, 1940

Agnes No. 7, Volume 40, page 298, Jan. 13, 1941

14) That the persons contributing to the financing of the discovery, location, prospecting and development of said claims were the beneficial owners thereof, and title to said claims was held by Sig Dillsheimer for himself and for the benefit of those contributing money and services to said venture.

15) That by deed dated June 24, 1941, Sig Dillsheimer conveyed said mining claims, which deed was recorded at pages 234-235, Volume 13 Mining Conveyances, records of Josephine County, Oregon.

16) That on July 3, 1941, taxpayer issued to Sig Dillsheimer, in consideration of his conveyance to it of said mining claims, its stock certificate No. 1 for 47,997 shares.

17) Sig Dillsheimer transferred out of said certificate No. 1 certificates Nos. 5 to 17, inclusive, on July 3, 1941, 47,997 shares, retaining certificate No.

8 in his name for 10,150 shares and transferring the remainder of said certificate to the persons for whose benefit he had been holding said mining claims in trust.

18) The transfer of said claims for said shares was not substantially in proportion to the financial contributions nor time expended by the persons beneficially interested in said claims.

19) Certificates Nos. 5 to 17 were issued as follows:

Certif. No.	Name	No. Shares	Amount
5	J. C. Haas, E.M.	7,199	\$ 22.00
6	Marie Krueger	2,000	151.62
7	Gertrude Krueger	2,949	250.00
8	Sig Dillsheimer	10,150	191.68
9	Agnes Smith	4,800	
10	Garfield Voget	8,999	458.75
11	Marie Knauf	2,400	
12	Arnold Krueger	1,800	500.00
13	G. E. Heinlein	600	
14	Fred A. Ebel	1,200	150.00
15	Mrs. L. M. Case	1,500	150.00
16	Louis E. Johnson	2,000	
17	J. A. Gingrich	2,400	158.50
Totals.....		47,997	\$2,032.55

20) The taxpayer paid \$2,491.85 during the year 1944 to J. C. Haas, E.M., Sig Dillsheimer, Max Krueger, and others, for personal services rendered to taxpayer and said persons had no economic interest in the mineral in place in said mine.

Wherefore, the petitioner prays that this Court may hear this proceeding and determine that the Commissioner was in error in each and all of the particulars hereinabove alleged, and petitioner

prays that the court may determine that there is no deficiency for the aforesaid taxes, and your petitioner will ever pray.

Dated this 7th day of September, 1949.

/s/ WM. B. MURRAY,
Attorney for Petitioner.

State of Oregon,
County of Multnomah—ss.

We, Garfield Voget and Max Krueger, being duly sworn, each speaking for himself and not for each other, say: That Garfield Voget is the President and Max Krueger is the Secretary-Treasurer of Oregon Chrome Mines, Inc., and that we are duly authorized to verify the foregoing petition, and we have read the foregoing petition and are familiar with the statements contained therein, and that the statements contained therein are true, except those stated to be upon information and belief, and that those we believe to be true.

/s/ GARFIELD VOGET,

/s/ M. E. KRUEGER.

Subscribed and sworn to before me this 7th day of September, 1949.

[Seal] /s/ KATHERINE DUNIWAY,
Notary Public for Oregon.

My Commission Expires 10/2/51.

EXHIBIT "A"

Treasury Department
Internal Revenue Service
Seattle 1, Washington

February 18, 1948

Office of
Internal Revenue Agent in Charge
305-A Jones Building
1331 Third Avenue
IT :90D :KLW

Oregon Chrome Mines, Inc.
c/o Portland Business Service Co.

Mr. E. R. Tower
3601 N. E. Union Avenue
Portland 12, Oregon

Gentlemen:

You are advised that the determination of your income tax liability for the taxable year ended December 31, 1944, discloses a deficiency of \$875.57, and that the determination of your declared value excess profits tax liability for the year mentioned discloses a deficiency of \$2,651.96, and that the determination of your excess profits tax liability for such year discloses a deficiency of \$15,404.74 as shown in the statement attached.

In accordance with the provisions of existing internal revenue laws, notice is hereby given of the deficiency or deficiencies mentioned.

Within 90 days (not counting Saturdays, Sunday, or a legal holiday in the District of Columbia as

the 90th day) from the date of the mailing of this letter, you may file a petition with the Tax Court of the United States, at its principal address, Washington 25, D. C., for a redetermination of the deficiency or deficiencies.

Should you not desire to file a petition, you are requested to execute the enclosed form and forward it to the Internal Revenue Agent in Charge, Seattle 1, Washington, for the attention of IT:90D:KLW. The signing and filing of this form will expedite the closing of your return(s) by permitting an early assessment of the deficiency or deficiencies, and will prevent the accumulation of interest, since the interest period terminates 30 days after filing the form, or on the date assessment is made, whichever is earlier.

Very truly yours,

GEO J. SCHOENEMAN,
Commissioner.

By /s/ S. R. STOCKTON,
Internal Revenue Agent in
Charge.

KLW :mts

Enclosures:

Statement

Form of Waiver

IT:90D:KLW

STATEMENT

Oregon Chrome Mines, Inc.
c/o Portland Business Service Co.

E. R. Tower
3601 N. E. Union Avenue
Portland 12, Oregon

Tax Liability for the Taxable Year Ended December 31, 1944

	Liability	Assessed	Deficiency
Income Tax	\$ 2,816.44	\$1,940.87	\$ 875.57
Declared Value			
Excess Profits Tax	3,801.45	1,149.49	2,651.96
Excess Profits Tax	15,404.74		15,404.74
Totals.....	\$22,022.63	\$3,090.36	\$18,932.27

In making this determination of your income, declared value excess profits tax and excess profits tax liabilities, careful consideration has been given to the report of examination dated July 29, 1947.

A copy of this letter and statement has been mailed to your representative, Mr. Wm. B. Murray, 825 Yeon Building, Portland 4, Oregon, in accordance with the authority contained in the power of attorney executed by you.

Adjustments to Net Income

Net income as disclosed by return.....	\$ 8,708.25
Unallowable deductions and additional income:	
(a) Net operating loss deduction	\$ 1,597.46
(b) Depletion	18,493.16
Net income, adjusted.....	\$28,798.87

Explanation of Adjustments

(a) It has been determined that the net operating loss deduction allowable in 1944 is none. You deducted on the return \$1,597.46. Therefore, net income is increased by this amount.

(b) It has been held that total depletion allowable based on the percentage method does not exceed \$5,506.84. Depletion based on the unit cost method does not apply as total depletion allowable computed on this basis would not exceed \$454.33. Depletion was deducted on the return in the total amount of \$24,000.00; therefore, net income is increased \$18,493.16.

Declared Value Excess-Profits Tax Computation

Net income, adjusted			\$28,798.87
	Amount	Rate	
5% of declared value of capital stock....	none		
Balance	\$28,798.87	13.2%	3,801.45
Declared value excess profits tax assessed Account No. 4200551			1,149.49
Deficiency of declared value excess-profits tax.....			\$ 2,651.96

Income Tax Computation—Normal-Tax Net Income Computation

Net income, adjusted	\$28,798.87
Less: Adjusted excess profits net income	17,997.24
Normal-tax and surtax net income.....	\$10,801.63

Normal Tax Computation

Domestic Corporations With Normal-Tax Incomes Not Over \$50,000			
Normal-tax net income			\$10,801.63
	Portion	Rate	Amount of Tax
Portion of normal-tax net income (not in excess of \$5,000) and tax.....	\$5,000.00	15%	\$ 750.00
Portion of normal-tax net income (in excess of \$5,000 and not in excess of \$20,000) and tax.....	5,801.63	17%	986.28
Total normal tax.....			\$1,736.28

Corporations With Surtax Net Incomes Not Over \$50,000

	Portion	Rate	Amount of Tax
Portion of surtax net income (not in excess of \$25,000); and tax.....	\$10,801.63	10%	\$1,089.16
Tax liability			2,816.44
Income tax assessed: Account No. 4200551.....			1,940.87
Deficiency of income tax			\$ 875.57

Excess Profits Tax Computation

1. Excess profits net income per return	\$ 8,691.93
2. Add: Increase to net income	20,090.62
3. Excess profits net income	\$28,782.55
4. Less: Specific exemption	\$10,000.00
5. Excess profits credit	197.91
6. Unused excess profits credit adjustment.....	567.40
	10,765.31

7. Adjusted excess profits net income.....	\$18,017.24
8. 95% of item 7.....	17,116.38
9. Surtax net income	28,798.87
10. 80% of item 9.....	23,039.10
11. Income tax	2,816.44
<hr/>	
12. Excess of item 10 over item 11.....	\$20,222.66
13. Item 12, or item 8, whichever is lesser.....	17,116.38
14. Less: Credit—Section 784	1,711.64
<hr/>	
15. Correct excess profits tax liability	\$15,404.74
16. Previous assessment	none
<hr/>	
17. Deficiency in excess profits tax	\$15,404.74
<hr/>	

Filed at hearing Oct. 26, 1949, T.C.U.S.

[Title of Tax Court and Cause.]

ANSWER TO AMENDED PETITION

Comes Now the Commissioner of Internal Revenue, by his attorney, Charles Oliphant, Chief Counsel, Bureau of Internal Revenue, and for answer to the amended petition filed herein admits and denies as follows:

1. Admits the material allegations contained in Paragraph I of the amended petition.

2. Admits the material allegations contained in Paragraph II of the amended petition.

3. Admits the material allegations contained in Paragraph III of the amended petition.

4. (1) to (3) inclusive. Denies that he erred in his determination of the deficiency as shown by the notice of deficiency from which petitioner's appeal

is taken. Specifically denies that he erred in the manner and form alleged in Paragraph IV (1) to (3), inclusive, of the amended petition.

5. (1) Admits the material allegations contained in Paragraph V, sub-paragraph 1, of the amended petition.

(2) Denies the material allegations contained in Paragraph V, sub-paragraph 2, of the amended petition.

(3) Admits that on the 14th day of April, 1942, the petitioner entered into a written agreement with William S. Robertson, mining engineer. Denies the remaining material allegations contained in Paragraph V, sub-paragraph 3, of the amended petition.

(4) Denies the material allegations contained in Paragraph V, sub-paragraph 4, of the amended petition.

(5) Admits that the contract was subsequently modified. Denies the remaining material allegations contained in Paragraph V, sub-paragraph 5, of the amended petition.

(6) to (12), inclusive. Denies the material allegations contained in Paragraph V, sub-paragraphs 6 to 12, inclusive, of the amended petition.

(13) Admits that the mine consists of claims known as Agnes No. 1 to Agnes No. 7, inclusive, Township 37 South, Range 9 West of the Willamette Meridian, about 16 miles from Selma on Oak Flat on the easterly side of the Illinois River, Jose-

phine County, Oregon. Admits that these claims were located in the name of Sig Dilsheimer. Denies the remaining material allegations contained in Paragraph V, sub-paragraph 13, of the amended petition.

(14) Admits that the title to said claims was held by Sig Dilsheimer for himself and others. Denies the remaining material allegations contained in Paragraph V, sub-paragraph 14, of the amended petition.

(15) Admits the material allegations contained in Paragraph V, sub-paragraph 15, of the amended petition.

(16) Admits the material allegations contained in Paragraph V, sub-paragraph 16, of the amended petition.

(17) and (18). Denies the material allegations contained in Paragraph V, sub-paragraphs 17 and 18, of the amended petition.

(19) Admits that certificates numbered 5 to 17 were issued to the persons listed in sub-paragraph 19, and that the number of shares represented by said certificates were as shown in sub-paragraph 19, except respondent alleges that the name shown in the amended petition as Marie Krueger is in error. Denies the remaining material allegations contained in Paragraph V, sub-paragraph 19, of the amended petition.

(20) Denies the material allegations contained in Paragraph V, sub-paragraph 20, of the amended petition.

6. Denies generally and specifically each and every material allegation contained in the amended petition not hereinbefore specifically admitted, qualified or denied.

Wherefore, it is prayed that the petitioner's appeal be denied and that the Commissioner's determination of deficiency be approved.

/s/ CHARLES OLIPHANT,
Chief Counsel, Bureau of
Internal Revenue.

Of Counsel:

WILFORD H. PAYNE,
Division Counsel.

JOHN H. PIGG,
R. G. HARLESS,
Special Attorneys,
Bureau of Internal Revenue.

Filed at hearing Oct. 26, 1949, T.C.U.S.

The Tax Court of the United States

Docket Nos. 18515, 23902

OREGON CHROME MINES, INC.,

Petitioner,

vs.

COMMISSIONER OF INTERNAL REVENUE,

Respondent.

Promulgated October 4, 1950

MEMORANDUM FINDINGS OF FACT
AND OPINION

On or before June 24, 1941, petitioner acquired title to seven chrome mining claims in exchange for its entire capital stock, and thereafter it engaged in limited exploration and development of the mining properties until April 14, 1942. On that date it entered into a lease-royalty agreement relative to these mining claims whereby the lessee agreed to pay petitioner a gross royalty of 20 per cent upon all sales of chrome ore it might extract from the mining properties. Petitioner's income in 1944 consisted entirely of royalty payments received under the lease agreement. Held, that during the taxable year 1944 petitioner was not engaged in the mining of chromite within the meaning of Section 731 of the Internal Revenue Code, and therefore its adjusted excess profits net income in that year was not exempt from the excess profits tax.

WILLIAM B. MURRAY, ESQ.,

For the Petitioner.

ROBERT G. HARLESS, ESQ.,

For the Respondent.

These proceedings arise by reason of respondent's determination of deficiencies in income, declared value excess profits, and excess profits taxes for the calendar years 1944 and 1945 in the following amounts:

	1944	1945
Income tax	\$ 875.57	\$648.12
Declared value excess profits tax.....	2,651.96	493.94
Excess profits tax	15,404.74

Petitioner has withdrawn its claim that in both 1944 and 1945 it was entitled to the use of cost depletion rather than percentage depletion and as this constituted petitioner's sole allegation of error in Docket No. 23902, abandonment of the claim thereby disposes of petitioner's appeal in respect to the deficiencies for 1945. The respondent has also conceded that in determining the deficiencies in Docket No. 18515, he erroneously disallowed a deduction for salaries and wages in 1944 in the amount of \$2,491.85.

As a result of these concessions, the sole remaining issue is whether all or any part of the petitioner's adjusted excess profits net income for the taxable year 1944 was exempt from excess profits tax by virtue of the provisions of Section 731 of the Internal Revenue Code.

Findings of Fact

Part of the facts were stipulated and are so found.

Petitioner is a corporation organized on June 13, 1941, under the laws of the State of Oregon. By its articles of incorporation it is authorized to engage

in the mining, buying and selling of all kinds of ores, metals and minerals as well as to acquire and dispose of mining claims and properties. Its Federal tax returns for the years 1944 and 1945 were filed with the collector of internal revenue for the district of Oregon.

Petitioner's authorized capital stock consists of 48,000 shares of common stock of the par value of \$1 per share, all of which stock is issued and outstanding. On or before June 24, 1941, the petitioner acquired title to seven chrome mining claims located in Josephine County, Oregon, known as Agnes No. 1 to Agnes No. 7, inclusive, in exchange for its entire capital stock.

During the First World War, the Agnes mining claims had produced approximately 5,000 tons of chrome ore. As chrome ore is normally imported into this country, the prior owners allowed the claims to lapse and revert to the Government some time after the conclusion of the First World War.

Prior to June 24, 1941, title to the Agnes mining claims was held by Sig Dilsheimer for the benefit of himself and other persons who contributed various sums of money with the understanding that a corporation would be formed in which they would receive stock interests in return for such advances. Examination of the abandoned mining site had convinced them that there was a reasonable prospect of getting at least 5,000 more tons of chrome from these mining properties.

On June 24, 1941, Dilsheimer, by deed, conveyed the claims to the petitioner in return for 47,997

shares of its capital stock and thereafter distributed a portion of this stock to those persons who had contributed funds prior to the incorporation of petitioner. The remaining three shares of petitioner's stock were issued to Max Krueger, J. C. Haas and Garfield Voget, as qualifying shares and as part of the transaction whereby petitioner acquired the mining claims. No other consideration was received by petitioner in return for its capital stock.

On July 2, 1941, petitioner borrowed the sum of \$5,000 from Garfield Voget to use for operating expenses in developing the Agnes mining claims. Prior to April 12, 1942, petitioner completed several hundred feet of tunnel work and engaged in raising, drifting and cross-cutting to find ore.

On April 14, 1942, petitioner entered into a written lease with William S. Robertson whereby petitioner leased the Agnes mining claims to Robertson. The terms of the lease stated in pertinent part:

The lessor agrees:

1. Oregon Chrome Mines, Inc., leases to William S. Robertson the above claims for a period of two years from date with an option of two additional years if the recovery from said claims is reasonably successful during the first two years.

2. Oregon Chrome Mines, Inc., agrees that each year it will file with the proper authorities proof of labor for the past year so that title to said claims will remain in the corporation and locations to said claims be kept valid.

3. Oregon Chrome Mines, Inc., will keep its corporate franchise intact, keep its corporate taxes paid, and will pay all governmental and state charges against said claims.

The lessee agrees:

1. To furnish such equipment, tools, and machinery, and labor as will be necessary to work said claims, and to explore said ground to determine if the said land contains chrome ore, and if the said claims contain chrome ore he agrees to mine said claims and to ship said ore to market and to sell same to his best advantage.

2. The lessee, above named, shall open, use, and work said mines as is usual and customary in the skillful and proper mining operations of similar character, and shall perform or cause to be performed at least 1,000 man hours labor at said claims, beginning not later than May 20, 1942, and ending not later than August 20, 1942, and after he has expended said hours labor on said claims he shall have the right to cancel this lease by giving ten days' written notice to the lessor and then he shall have the right to forthwith remove any and all equipment, tools, and machinery that he has placed on said claims.

3. The lessee, above named, shall pay all expenses of operation, including labor, and shall pay all state and governmental taxes in con-

nection with his own operation. He shall carry state industrial accident insurance.

4. The lessee, above named, agrees to pay the lessor as rent and royalty for the use and depletion of said claims and the taking of said chrome ore one-fifth or 20 per cent of any and all amounts he shall receive from sale of said ore. This 20 per cent to be a gross royalty and from 80 per cent of the amount he shall receive from the sale of said ore he shall pay for the expense of operation. In other words, the lessee is to pay the lessor a 20 per cent gross royalty.

The lessee agrees to seasonably sell the ore that he has mined and to furnish the lessor a duplicate statement of the amount received by him for the sale of said ore. Ten days after he has received his pay for the ore he agrees to pay one-fifth thereof or 20 per cent to the lessor.

The lease was modified subsequently, but such modification related only to the amount of the gross royalty to be paid to the petitioner under the lease. The lease, as modified, was in effect during the period under consideration. Subsequent to the execution of the lease and during the taxable year in question, petitioner's income consisted entirely of royalty payments received under the lease agreement. Subsequent to April 12, 1942, petitioner neither directly nor indirectly took part in completing the development of these mining properties or the extraction and marketing of chrome therefrom.

The chrome ore extracted from the Agnes mining claims was of a very high grade and during the period under consideration constituted one of the largest sources of high grade chrome in the United States.

Petitioner occasionally made inquiries concerning the purchase of other chrome mining properties, but at the close of 1944 had not closed any deals for the acquisition of additional mining claims. In July, 1944, petitioner's directors did authorize Heitschmidt, the company attorney, to purchase some previously mined chrome ore which the latter had been dickering for on his own and a check for \$3,000 was issued to him for that purpose.

In 1944 petitioner addressed a letter to the Commissioner of Internal Revenue requesting advice. In a reply thereto dated November 20, 1944, the Commissioner advised the petitioner that it was not considered to be a domestic corporation engaged in mining as contemplated by Section 731 of the Internal Revenue Code and consequently its adjusted excess profits net income was not exempt from the excess profits tax.

During the taxable year 1944 petitioner was not "engaged in the mining" of chromite within the meaning of Section 731 of the Internal Revenue Code.

Opinion

Hill, Judge:

The narrow question for our determination in this proceeding is whether petitioner was "engaged

in the mining” of chromite within the meaning of Section 731¹ of the Code during the taxable year 1944 so that its adjusted excess profits net income was exempt from the excess profits tax. Section 731 was first enacted into law as part of the Second Revenue Act of 1940. The purpose of the statute was to stimulate the domestic discovery and production of certain strategic materials, including chromite, of which there was a shortage in this country. The exemption granted by Section 731 was withdrawn by the Revenue Act of 1941 with respect to taxable years beginning after December 31, 1940. The exemption was subsequently restored in substantially the same form by the Revenue Act of 1942. Section 207 of the Revenue Act of 1943 added to the list of strategic materials set out in the statute.

Our first consideration is the scope Congress intended to give the phrase “engaged in mining.” No definition of these words is contained within Section 731. We have carefully searched the legislative history of this section and found no clear-cut stand-

¹Sec. 731. Corporations Engaged in Mining of Strategic Minerals.

In the case of any domestic corporation engaged in the mining * * * chromite * * *, the portion of the adjusted excess profits net income attributable to such mining in the United States shall be exempt from the tax imposed by this subchapter. The tax on the remaining portion of such adjusted excess profits net income shall be an amount which bears the same ratio to the tax computed without regard to this section as such remaining portions bears to the entire adjusted excess profits net income.

ards set forth for determining whether a corporation is "engaged in mining" within the statute. The regulations relating to Section 731, Regulations 109, Section 30.731-1, and its successor, Regulations 112, Section 35.731-1, are of no help in clarifying the statutory phrase in question, and no court decisions have interpreted the language. Elsewhere in the Code under Section 114(b) (4)(B)² Congress gave a broader than usual definition of "mining" and by the express language of that subparagraph its principles are applicable in determining gross income attributable to mining for the purposes of Section 731. It states that "mining," as used therein, includes "not merely the extraction of the ores or minerals from the ground but also the ordinary

²Sec. 114. Basis for Depreciation and Depletion.

* * *

(b) Basis for Depletion:

* * *

(4) Percentage Depletion for * * * Metal Mines * * *.

(B) Definition of Gross Income from Property.—As used in this paragraph the term "gross income from the property" means the gross income from mining. The term "mining," as used herein, shall be considered to include not merely the extraction of the ores or minerals from the ground, but also the ordinary treatment processes normally applied by mine owners or operators in order to obtain the commercially marketable mineral product or products. * * * The principles of this subparagraph shall also be applicable in determining gross income attributable to mining for the purposes of Sections 731 and 735.

treatment processes normally applied by mine owners or operators in order to obtain the commercially marketable mineral product or products.” The more usual and ordinary definition of “mining” does not include the treatment processes. Webster’s New International Dictionary, 2d Ed., states that “mining” is the “Act or business of making or of working mines.” Black’s Law Dictionary, 3rd Ed., defines “mining” as “the process or business of extracting from the earth the precious or valuable metals, either in their native state or in their ores.” Corpus Juris Secundum, Vol. 58, page 35, section 3, declares that “mining,” as generally defined, is the process of extracting from the earth the rough ore or mineral; the act or business of making mines or working them.” The Court of Appeals for the Tenth Circuit stated in *Chicago Mines Co. v. Commissioner*, 164 Fed. (2d) 785, 787, that “‘Mining’ thus connotes the removal of minerals from a natural deposit * * *.”

It is possible that Congress intended that the broad definition of “mining” set forth in Section 114 (b)(4)(B) should serve not only to determine income attributable to mining within Section 731, but also that this definition should furnish a guide post for determining whether a corporation was “engaged in mining” under the same section. In any event, whether we are guided by the statutory definition or by the usual and ordinary definition of “mining,” we are convinced by the evidence that petitioner was not engaged in the mining of chro-

mite for the purposes of Section 731 in the taxable year.

In 1944 petitioner played an entirely passive role in the chrome mining industry as lessor of the Agnes mining claims, and received all of its income in the form of royalties from Robertson, the lessee. Following the lease agreement of April 14, 1942, petitioner had performed no function nor taken any financial risk in exploring these mining properties for ore, developing mines, extracting chromite therefrom and marketing the same. Nor was petitioner engaged in any other mining operations during the taxable year. There is evidence that it directed a few inquiries toward the purchase of other chrome mining claims and on one occasion authorized the expenditure of \$3,000 to acquire chrome which had already been mined. These negligible activities fall far short of any active policy of locating and developing other chrome deposits. We do not attach much significance to the fact that in the brief period from June 24, 1941, until April 12, 1942, petitioner explored and developed the Agnes mining properties to a limited extent. These same claims had previously been located and worked in World War I and were relocated and examined prior to petitioner's incorporation. There is no affirmative evidence that petitioner found any mineable deposit of chromite therein prior to April 12, 1942, and the express terms of the lease on that date plus the small capital commitment by petitioner for exploration refute any conclusion that it completed the exploration and development work there. Finally we

give little weight to this limited action on the part of petitioner because no further steps were taken towards active participation in mining operations there or elsewhere subsequent to April 14, 1942. Such activity was a mere isolated occurrence. Thus we conclude that in 1944 petitioner was not engaged in discovering deposits of chrome ore, building mines, extracting ore or treating same. It was not engaged in "mining" in the usual sense or as defined in section 114 (b) (4) (B).

It is a well recognized principle that tax exemptions are not be lightly inferred, *Heiner v. Colonial Trust Co.*, 275 U. S. 232; *United States v. Stewart*, 311 U. S. 60. In view of Congressional silence regarding lessors of mining properties, we are convinced it would be an undue extension of the statutory language to hold that Section 731 covers a corporation such as petitioner, which bought up a few mining claims in a proven area, which started but never completed the exploration or development of any mining properties nor extracted ore therefrom, and which quickly lapsed into the passive role of a lessor holding its claims for lease to a producer willing to carry out all the mining operations necessary to mine and market chromite. We therefore hold that in 1944 petitioner was not entitled to the exemption contained in Section 731. The concessions set forth in the stipulation of facts will be taken into account in the recomputation herein directed.

Petitioner abandoned the only error assigned as the basis of its petition in Docket No. 23902.

Reviewed by the Court.

In Docket No. 18515, decision will be entered under Rule 50.

In Docket No. 23902, decision will be entered for respondent.

Arundell, J., dissenting:

It seems to me that the construction given to Section 731 in the majority opinion is entirely too narrow and serves to defeat the very purpose of its enactment.

In 1940, there was a crying need for the production of certain strategic war materials, of which chromite was one. We had depended on foreign sources for our supply and the war activities of the enemy made likely the stoppage of our importations. To give encouragement to the discovery and development of our domestic sources of supply, Congress enacted Section 731 of the Internal Revenue Code which provided that:

In the case of any domestic corporation engaged in the mining of * * * chromite * * * , the portion of the adjusted excess profits net income attributable to such mining in the United States shall be exempt from the tax imposed by this subchapter.

There can be no question but that the income with which we are concerned was attributable to the

mining of chromite. But it is said that the petitioner was not engaged in mining and therefore may not have the benefit of the statute.

The petitioner was organized in 1941 for the sole purpose of taking title to a group of mining claims believed to contain chromite and with the view to their exploration and development. By April, 1942, it had opened tunnels and had performed various other work in order to locate the deposits of chromite and to prepare for the actual removal of the ore. Apparently the petitioner was financially unable to carry out the operation itself and a lease arrangement was made with Robertson under which the petitioner was to receive a gross royalty of 20 per cent of the amounts realized from the sales of ore.

To deny petitioner the benefits of Section 731 because it did not engage in the actual extraction of ore from the claims is to say that Congress intended only to accelerate the production of chromite from mines already existing and operating within the United States or to benefit only those firms possessed of sufficient financial resources to undertake and complete the exploitation of mining properties without outside assistance. In my opinion, this result is in direct conflict with the intent evidenced by Congress in its Committee Reports,* which indi-

*See H Rep. No. 3002, 76th Cong., 3d sess., 1940-2 C.B. 548, 559; Cong. Record, Vol. 86, pp. 12347, 12348, 12920; H. Rep. No. 1040, 77th Cong., 1st sess., 1941-2 C.B. 413, 434; Cong. Record, Vol. 87, pp. 6710-11, 6725-26, 7440-41; S. Rep. No. 1631, 77th Cong., 2d sess., 1942-2 C.B. 504, 536-538.

cate that the statute was designed to encourage the discovery, exploration and development of mines containing these strategic metals as well as to encourage the day-to-day removal of the ore. Therefore, it seems to me that recognition of the underlying necessity for the extension of this exemption and the specific purposes of Congress in granting this benefit require that the petitioner be regarded as having been engaged in the mining of chromite within the meaning of Section 731 during 1944.

Van Fossan, Johnson and Tietjens, JJ., agree with this dissent.

[Tax Court Seal.]

Served Oct. 4, 1950.

The Tax Court of the United States
Washington

Docket No. 18515

OREGON CHROME MINES, INC.,

Petitioner,

vs.

COMMISSIONER OF INTERNAL REVENUE,
Respondent.

DECISION

Pursuant to the determination of the Court as set forth in its findings of fact and opinion promulgated herein October 4, 1950, the respondent filed a recomputation of tax on November 7, 1950.

At the hearing on such recomputation held on November 29, 1950, there was no appearance for the petitioner. No objection has been filed to respondent's recomputation. It appearing that such recomputation is correct, it is

Ordered and Decided: That there are deficiencies in income tax, declared value excess profits tax and excess profits tax for the taxable year ended December 31, 1944, as follows:

Income Tax.....	\$ 870.17
Declared Value Excess Profits	
Tax	2,602.62
Excess Profits Tax	15,085.16

[Seal] /s/ EUGENE BLACK,
 Judge.

Entered November 30, 1950.

Served December 1, 1950.

In the United States Court of Appeals
For the Ninth Circuit

Docket No. 18515

OREGON CHROME MINES, INC.,
Petitioner,

vs.

COMMISSIONER OF INTERNAL REVENUE,
Respondent.

PETITION FOR REVIEW OF THE DECISION
OF THE TAX COURT OF THE UNITED
STATES

Comes now the above-named petitioner and petitions for review of the decision of the Tax Court of the United States in the above-entitled cause, which decision was rendered November 30, 1950, pursuant to the determination of the Court set forth in its Memorandum Finding of Fact and Opinion (Honorable Judge Hill, Judge) entered on October 4, 1950, and by which the Court decided:

That during the taxable year 1944 petitioner was not engaged in the mining of chromite within the meaning of section 731 of the Internal Revenue Code, and therefore its adjusted excess profits net income in that year was not exempt from the excess profits tax.

The nature of the controversy is as follows:

Petitioner seeks reversal of said decision which sustained the determination of Respondent, Com-

missioner of Internal Revenue, as evidenced by his ninety day letter of February 18, 1948. Said deficiency in tax was computed by the disallowance to the petitioner of the excess profits exemption of Section 731 of the Internal Revenue Code. Said exemption was disallowed for the reason that the Tax Court determined, as a matter of law, that the petitioner was not engaged in mining chromite during the taxable year 1944 within the meaning of the aforementioned Section 731. Petitioner prays for review and reversal of said decision upon the ground and for the reason that it is not warranted by the findings of fact of the Tax Court and is contrary to said findings and is not in accordance with law, particularly in that the petitioner was engaged in mining chromite, a strategic mineral within the meaning of Section 731 of the Internal Revenue Code.

Petitioner applies for review of said decision by the United States Court of Appeals for the Ninth Circuit. Said Court has venue to review said decision for the reason that in said Circuit is located the Collector's Office, i.e., the Collector of Internal Revenue, Portland, Oregon, to which was made return for each and all of the taxes in respect of which the asserted liability arises.

/s/ WILLIAM B. MURRAY,
Attorney of Record for
Petitioner.

Received and filed Jan. 22, 1951. T.C.U.S.

[Title of Tax Court and Cause.]

NOTICE OF PETITION FOR REVIEW TO
THE UNITED STATES COURT OF AP-
PEALS FOR THE NINTH CIRCUIT

To the Commissioner of Internal Revenue, Respond-
ent aboved named, and Charles Oliphant, At-
torney of Record for Respondent:

Notice is hereby given of the filing by Oregon Chrome Mines, Inc., petitioner above named, of its petition for review by the United States Court of Appeals for the Ninth Circuit of the decision of the Tax Court of the United States entered in the above-entitled cause on November 30, 1950. A copy of said petition is attached hereto. Said petition is filed and this notice given pursuant to sections 1141 and 1142, Internal Revenue Code, and Rule 31 of the Rules of the United States Court of Appeals for the Ninth Circuit.

/s/ WILLIAM B. MURRAY,
Attorney of Record for
Petitioner.

Service of the original of the foregoing Notice of petition for review as prescribed by law and service of a copy of the Petition for review, is hereby admitted at Washington, D. C., this 3rd day of Jan., 1951.

/s/ CHARLES OLIPHANT, CWR
Chief Counsel, Bureau of
Internal Revenue.

Received and filed Jan. 22, 1951.

[Title of Court of Appeals and Cause.]

NOTICE OF FILING PETITION FOR REVIEW AND STATEMENT OF POINTS AND DESIGNATION OF RECORD

To: Charles Oliphant, Chief Counsel, Bureau of Internal Revenue.

You are hereby notified that the above petitioner did, on the 22nd day of January, 1951, file with the Clerk of the Tax Court of the United States, at Washington, D. C., a petition for review by the United States Court of Appeals for the Ninth Circuit, of the decision of this Court heretofore rendered in the above-entitled case. Copies of the petition for review and the statement of points and designation of record as filed are hereto attached and served upon you.

Dated this 23rd day of January, 1951.

/s/ VICTOR S. MERSCH,
Clerk, The Tax Court of the
United States.

Service of copies of Petition for Review and Statement of Points acknowledged this 23rd day of January, 1951.

/s/ CHARLES OLIPHANT, CWR
Chief Counsel, Bureau of
Internal Revenue,
Attorney for Respondent.

Filed Jan. 23, 1951. T.C.U.S.

[Title of Tax Court and Cause.]

DESIGNATION OF RECORD TO BE
CERTIFIED

Petition for Review to the United States Court of
Appeals for the Ninth Circuit

To the Clerk of the Tax Court of the United States:

In connection with the Petition for Review of the decision of the Tax Court of the United States in the above-entitled matter filed in the above-named petitioner, it is respectfully requested that you prepare in accordance with Rules 75 and 76 of the Rules of Civil Procedure of the District Courts of the United States, certify, transmit to and file with the United States Court of Appeals for the Ninth Circuit within forty days after the filing of said petition a typewritten copy of a portion of the record in that cause for review.

It is designated that copies of the following portions of the record be prepared, certified, transmitted and then filed with said United States Court of Appeals for the Ninth Circuit: i.e. (1) the Docket Entries; (2) Amended Petition; (3) Answer to Amended Petition; (4) Memorandum Findings of Fact and Opinion; (5) Petition for Review and Notice of Filing Petition for Review, with proof of service thereof; (6) Designation of Record to be Certified; (7) Statement of Points; (8) Decision.

/s/ WILLIAM B. MURRAY,
Attorney of Record for
Petitioner.

Service of the original of the foregoing Designation of Record to be Certified as prescribed by law and service of a copy of the Designation of Record to be Certified, is hereby admitted at Washington, D. C., this 3rd day of Jan., 1951.

/s/ CHARLES OLIPHANT,
Chief Counsel, Bureau of
Internal Revenue.

Received and filed Jan. 22, 1951. T.C.U.S.

[Title of Tax Court and Cause.]

CLERK'S CERTIFICATE

I, Victor S. Mersch, Clerk of the Tax Court of the United States do hereby certify that the foregoing documents, 1 to 8, inclusive, constitute and are all of the original papers and proceeding on file in my office as called for by "Designation of Record" in the proceeding before the Tax Court of the United States in the above-entitled proceeding and in which the petitioner in The Tax Court proceeding has initiated an appeal as above numbered and entitled, together with a true copy of the docket entries in said Tax Court proceeding, as the same appear in the official docket book in my office.

In testimony whereof, I hereunto set my hand and affix the seal of The Tax Court of the United States, at Washington, in the District of Columbia, this 30th day of January, 1951.

[Seal] /s/ VICTOR S. MERSCH,
Clerk.

[Endorsed]: No. 12856. United States Court of Appeals for the Ninth Circuit. Oregon Chrome Mines, Inc., Petitioner, vs. Commissioner of Internal Revenue, Respondent. Transcript of the Record. Petition to Review a Decision of The Tax Court of the United States.

Filed February 16, 1951.

/s/ PAUL P. O'BRIEN,
Clerk of the United States Court of Appeals for
the Ninth Circuit.

In the United States Court of Appeals
For the Ninth Circuit

OREGON CHROME MINES, INC., a Corporation,
Petitioner on Review,

vs.

COMMISSIONER OF INTERNAL REVENUE,
Respondent on Review.

STATEMENT OF POINTS

Now comes the petitioner on review in the above-designated proceedings, and hereby designates the following points upon which it intends to rely:

1. The Tax Court erred in ordering and deciding that there is a deficiency in income tax of \$870.17, declared value excess profits tax of \$2602.62, and excess profits tax of \$15,085.16.

2. The Tax Court erred in holding that during the taxable year 1944, petitioner was not engaged in the mining of chrome within the meaning of section 731 of the Internal Revenue Code, and therefore its adjusted excess profits net income in that year was not exempt from the excess profits tax.

/s/ WILLIAM B. MURRAY,
Counsel for Petitioner.

Affidavit of Service by Mail attached.

[Endorsed]: Filed February 12, 1951. U.S.C.A.

In the United States Court of Appeals
For the Ninth Circuit

No. 18515

OREGON CHROME MINES, INC., a Corpora-
tion,

Petitioner,

vs.

COMMISSIONER OF INTERNAL REVENUE,
Respondent.

DESIGNATION OF RECORD TO BE
PRINTED

To: The Clerk of the United States Court of Ap-
peals for the Ninth Circuit:

Comes now the petitioner appellant and designates
the record to be printed in accordance with the
rules of the above-entitled Court as follows:

- (1) The Docket Entries.
- (2) Amended Petition.
- (3) Answer to Amended Petition.
- (4) Memorandum Findings of Fact and Opinion.
- (5) Petition for Review and Notice of filing
Petition for Review with proof of service
thereof.
- (6) Designation of Record to be Certified.
- (7) Statement of Points.

- (8) Decision of the Tax Court of the United States.

/s/ WILLIAM B. MURRAY,
Attorney of Record for
Petitioner.

Affidavit of Service by Mail attached.

[Endorsed]: Filed Feb. 12, 1951. U.S.C.A.



United States
COURT OF APPEALS
for the Ninth Circuit

OREGON CHROME MINES, INC.,
Appellant,

vs.

COMMISSIONER OF INTERNAL REVENUE,
Respondent.

APPELLANT'S BRIEF

Petition to Review a Decision of the Tax Court
of the United States.

WM. B. MURRAY,
525 Failing Building,
Portland 4, Oregon,
Attorney for Appellant.

FILED

APR 27 1951

PAUL H. O'BRIEN,

CLERK



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United States
COURT OF APPEALS
for the Ninth Circuit

OREGON CHROME MINES, INC.,
Appellant,
vs.

COMMISSIONER OF INTERNAL REVENUE,
Respondent.

APPELLANT'S BRIEF

Petition to Review a Decision of the Tax Court
of the United States.

JURISDICTIONAL STATEMENT

This is an appeal from a decision of the Tax Court of the United States ordering and deciding that there was a deficiency in appellant's excess profits tax of \$15,085.16 for the calendar year 1944.

This case was tried in the Tax Court on the amended petition (R. 5) and answer to the amended petition (R. 16). The issues in the Tax Court were narrowed to the

sole question whether appellant was "engaged in the mining" of chromite within the meaning of Section 731 of the Internal Revenue Code. The opinion of the Tax Court was divided on this question.

The Tax Court of the United States had jurisdiction of this cause under the provisions of Title 26, U.S.C., Sec. 1101.

This Court has jurisdiction to review by appeal the judgment of the Tax Court of the United States under the provisions of Title 26, U.S.C., Sec. 1141.

This case is not one in which direct review may be had in the Supreme Court of the United States under the provisions of Title 28, U.S.C., Secs. 1252-1257.

STATEMENT OF THE CASE

The appellant Oregon Chrome Mines, Inc., appeals from the decision of the Tax Court of the United States which sustained the determination of the respondent Commissioner of Internal Revenue that during the taxable year 1944 petitioner was not entitled to the excess profits tax exemption granted by Sec. 731 of the Internal Revenue Code to any domestic corporation engaged in the mining of chromite, a strategic mineral, within the United States. The only question in this case is whether petitioner was engaged in the "mining" of chromite within the meaning of Sec. 731. Petitioner maintains that it was so engaged and appeals from the too narrow interpretation of Sec. 731 made by the Tax Court.

SPECIFICATION OF ERROR

The Tax Court erred in denying the appellant exemption from excess profits tax under Sec. 731, Internal Revenue Code, where the findings disclose appellant was a domestic corporation engaged in mining chromite and that its income was attributable to such mining in the United States.

POINTS AND AUTHORITIES

(1) Appellant, engaged in mining on a share-the-ore basis or tribute lease system, is engaged in mining within the meaning of section 731, Internal Revenue Code.

Section 731, Internal Revenue Code.

Section 304 (c) of the Revenue Act of 1921.

Committee on Appeals and Reviews, A.R.R. 6011,
III-1 C.B. 377.

(2) The word "engaged" means "to set about, to take up", or "to attract and hold fast (the attention, interest, etc.); occupy the attention or efforts of (a person)".

Roget's Thesaurus of the English Language in
Dictionary Form.

The New Century Dictionary, vol. 1, R. P. Collier and Son Corp.

(3) The meaning of the word "mining" is not limited to the extraction of ore from the earth.

Webster's New International Dictionary, Second
Edition.

Corpus Juris Secundum, vol. 58, p. 35.

(4) Appellant realizing income attributable to having engaged in mining previously is entitled to the exemption of section 731, Internal Revenue Code.

Section 731, Internal Revenue Code.

(5) In order to apply a statute in accordance with the way Congress intended it, it is appropriate to consider the context, the purpose, and the circumstances of the statute's enactment.

Helvering v. Stockholms Enskilda Bank, 293 U.S. 84, 55 S. Ct. 50, 79 L. Ed. 211 (1934).

Foster, et al. v. United States, 303 U.S. 118, 58 S. Ct. 424, 82 L. Ed. 700 (1938).

(6) Congress did not intend to limit the exemption of section 731 of the Internal Revenue Code to the extraction of chromite from mines existing and operating, but intended to encourage the development of new sources of supply.

H. Rep. No. 3002, 76th Cong., 3rd sess., 1940-2 C.B. 548, 559.

Cong. Record, vol. 86, pp. 12347, 12348, 12920.

H. Rep. No. 1040, 77th Cong., 1st sess., 1941-2 C.B., 413, 434.

Cong. Record, vol. 87, pp. 6710-11, 6725-26, 7440-41.

S. Rep. No. 1631, 77th Cong., 2nd sess., 1942-2 C.B. 504, 536-538.

ARGUMENT

Whether to follow the majority view or the minority view expressed in the Court below is the problem here

on review. This case was tried on the merits by Judge Arundell who was joined in his dissent by Judges Van Fossan, Johnson and Tietjens, all of whom agreed that unless a much broader interpretation were given to Sec. 731 than that pronounced in the majority opinion, the very purpose of its enactment would be defeated (R. 32, 34).

In order to be entitled to the exemption from excess profits taxes within Sec. 731, I.R.C., appellant must possess three qualifications: (1) it must be a domestic corporation, (2) it must be engaged in mining a strategic mineral (here chromite), and (3) its income must be attributable to such mining in the United States. The first and third factors are admitted, and it is conceded that if appellant was engaged in mining, it is entitled to the benefit of the exemption provided by Sec. 731, Internal Revenue Code, which see (App. A).

The majority opinion below was based upon its conclusion that during the year 1944, the appellant was not actively engaged in mining, interpreted narrowly as the physical extraction of ore from the earth. The majority opinion framed the issue thus: "The narrow question for our determination in this proceeding is whether petitioner was 'engaged in mining' of chromite within the meaning of Sec. 731 during the taxable year 1944 . . ." (R. 26, 27). Thus stated, the question reads into the statute an additional requirement not placed there by Congress, i.e., that the taxpayer be engaged in mining during the year the income is realized. When coupled with a narrow interpretation of the term "mining" to

mean extraction of ore, this time requirement creates a new restriction upon the exemption which Congress did not see fit to enact.

The appellant respectfully submits that its entire existence has been for the purpose of mining; it has no other business and the articles of incorporation under which the corporation was formed call for it to engage in mining (R. 21, 22). Now the court below took a scornful view of the mining activities in which the appellant managed to engage in the calendar year 1944, but the fact remains that the appellant's income for that year was realized as a result of its active engagement in mining in a prior year (R. 30). The source of the income is the important criterion set up in Sec. 731 to determine eligibility for the exemption. It is appellant's position that the taxable income of a given year is frequently realized only after a period of delay following the economic effort which produced the income.

It is apparent that appellant was actively engaged in mining, at least in 1942, if we consider the findings of the Court below. The appellant completed several hundred feet of tunnel work and engaged in raising, drifting and cross-cutting for the purpose of finding chromite ore (R. 23). The fact that appellant explored and developed the Agnes group of mining claims from June 24, 1941, until April 12, 1942, is significant and material in determining that appellant was engaged in mining although the Court below considered otherwise (R. 30). The appellant did not cease to engage in mining when in April of 1942 it leased its mining claims to William S. Robertson.

In the lease appellant agreed that it would keep its title to these unpatented mining claims valid by performing the required assessment work and by filing the necessary proofs of such work (R. 23). By this working arrangement Mr. Robertson agreed to pay to the appellant 20% of all amounts received from the sale of ore and from the 80% retained by him Mr. Robertson agreed to pay the expenses of operation. This arrangement was in effect during 1944, the period under consideration, modified only as to the percentage that appellant and Mr. Robertson were to receive. The terms of the lease stated in pertinent part are in App. B.

The acquisition of the unpatented group of mining claims, and the performance of work to make these claims into a mine, were all necessary to enable the appellant to negotiate a lease whereby Robertson would mine the claims on a share-the-ore basis. In a sense appellant was actively engaged in extracting ore through Robertson.

Although no cases interpreting Sec. 731 have been encountered by the appellant, a somewhat similar law was enacted in order to encourage the domestic mining of gold at the time of World War I and a case arising under that earlier enactment is in harmony with petitioner's position at present.

Sec. 304 (c) of the Revenue Act of 1921 provided:

“(c) In the case of any corporation engaged in the mining of gold, the portion of the net income derived from the mining of gold shall be exempt from the tax imposed by this title or any tax imposed by Title II of the Revenue Act of 1917 and

the tax on the remaining portion of the net income shall be the same proportion of a tax computed without the benefit of this subdivision which such remaining portion of the net income bears to the entire net income."

The Committee on Appeals and Reviews was asked by the Income Tax Unit to pass on the question whether or not taxpayers income received under a tribute lease system of mining gold was income derived from the mining of gold within the meaning of the foregoing statute. A.R.R. 6011, III-1, C.B. 377. The Committee found the tribute leases to be little more than profit sharing arrangements whereby the lessee miners performed the manual labor of getting out the ore, furnished some portion of the supplies consumed therein, and received in return therefor an agreed percentage of the gold in the ores extracted. After considering the evidence, it was the opinion of the Committee that the income received by the taxpayer should be considered as income derived from the mining of gold and entitled to the exemption from taxes imposed by Title II of the Revenue Act of 1917, as provided in Sec. 304(c) of the Revenue Act of 1921.

The earlier statute enacted to induce more gold mining within the United States is indicative of the purpose of the similar measure enacted during World War II to encourage increased domestic production of strategic minerals including chromite, and appellant urges that a similar interpretation should be given to its own income derived from the mining of chromite under the share lease arrangement that it had with Robertson.

If appellant was not engaged in mining, then in what industry was it engaged? If a farmer were to plant, cultivate and grow a crop of wheat, it would be just as logical to say that he was not engaged in farming when his crop was harvested on shares as it would be to say that when appellant drove tunnel, drifted, raised, cross-cut and developed ore in the ground and then realized his income from his efforts by a share agreement that he was not engaged in mining.

The meaning of the word "mining" is not limited to the extraction of ore from the earth but includes the act or business of making mines or working them. The definitions cited by the majority so interpret the meaning of the word. Webster's New International Dictionary, Second Edition, states that: "Mining is the act or business of making, or of working mines." Corpus Juris Secundum, Volume 58, Page 35, Section 3, declares that: "Mining, as generally defined, is . . . the act or business of making mines or working them." (R. 29).

If the attentions or efforts of appellant were occupied by mining to any degree, then it was engaged in mining, although it may not be engaged in physically extracting ore from the earth. The word "engaged" means "to set about, to take up." Roget's Thesaurus of the English Language in Dictionary Form. "Engaged" means "to attract and hold fast (the attention, interest, etc.); occupy the attention or efforts of (a person, etc.)." The New Century Dictionary, Volume I, published by R. P. Collier & Son Corporation.

Abstract definitions of the words in a statute, al-

though helpful, are not a dependable measuring stick with which to determine the limits of a tax exemption. In order to apply the statute to a practical problem in the way Congress intended it, it is appropriate to consider the context, the purpose, and the circumstances of the statute's enactment. *Helvering v. Stockholms Enskilda Bank*, 293 U.S. 84, 55 S. Ct. 50, 79 L. Ed. 211 (1934); *Foster, et al. v. United States*, 303 U.S. 118, 58 S. Ct. 424, 82 L. Ed. 700 (1938).

From the legislative history, it is apparent that it was not the intention of Congress to limit the exemption to corporations engaged in the actual extraction of ore. The purpose of this section was to encourage prospectors to go out into the field and make discoveries of deposits of chromite and other strategic metals. Congress did not intend to limit the exemption to the extraction of chromite from mines existing and operating, but obviously intended to encourage the development of new sources of supply. This observation is forcefully pointed out in Judge Arundell's dissenting opinion as follows:

"To deny petitioner the benefits of Section 731 because it did not engage in the actual extraction of ore from the claims is to say that Congress intended only to accelerate the production of chromite from mines already existing and operating within the United States or to benefit only those firms possessed of sufficient financial resources to undertake and complete the exploitation of mining properties without outside assistance. In my opinion, this result is in direct conflict with the intent evidenced by Congress in its Committee Reports* . . ."

*See H. Rep. No. 3002, 76th Cong., 3d sess., 1940-2 C.B. 548, 559; Cong. Record, Vol. 86, pp.

12347, 12348, 12920; H. Rep. No. 1040, 77th Cong., 1st Sess., 1941-2 C.B. 413, 434; Cong. Record, Vol. 87, pp. 6710-11, 6725-26, 7440-41; S. Rep. No. 1631, 77th Cong., 2d sess., 1942-2 C.B. 504, 536-538.

House Rep. No. 3002, 76 Congress, 3rd Session, 1940-2 C.B. 548, 559—"Sec. 731 INCOME FROM MINING STRATEGIC METALS (Sec. 730 of Senate Amendment): This section is new in the Senate Amendment, no comparable provision having been contained in the House Bill. It exempts from excess profits tax income derived from mining, reduction, or beneficiation of . . . chromite . . . , or the ores and material containing such metal. These materials have been declared to be strategic materials by the War Department. The exemption provided in Sec. 730 is intended to encourage their domestic production. . . ."

Cong. Record, Vol. 86, 76 Congress, 3rd Session, pp. 12347, 12348—Mr. Pittman " . . . The position I present is merely this: These are essential war materials. It is so stated by the War Department. Our importations may be cut off. It is necessary to increase production in this country. With these new industries expanding rapidly, or attempting to expand rapidly, generally with a great loss of money for several years, it is impracticable to attempt to assess excess profits tax against them. I ask for a vote on the amendment."

Cong. Record, Vol. 86, 76 Congress, 3rd Session, p. 12920.—Mr. Harrison " . . . I stated that there were six or seven metals or represented dealt with in the Senator's amendment (Pittman). We were not able to get the House Conferees to agree to the exact language of the Senate Amendment, but we were able to point out that the President in a message to the Congress, as I recall—I do not know that he included all of these metals—had asked us to enact legislation to preserve these strategic metals in the United States for our own defense."

House Rep. No. 1040, 77 Congress, First Session, 1941-2 C.B. 413, 434—"6 INCOME FROM MINING STRATEGIC METALS. The existing law exempts from excess-profits tax that portion of the adjusted excess-profits tax net income of a domestic corporation which is attributable to mining within the United States of . . . chromite. . . .

"Your Committee has removed this exemption, as it is believed that these corporations which make money out of the defense program should bear their share of the tax burden."

Cong. Record, Vol. 87 77 Congress, First Session, pp. 6710, 6711—Mr. Angell "American Production of strategic minerals—Mr. Chairman, I understand this bill eliminates the excess-profits tax exemption formerly accorded to producers of . . . chromite . . . in the United States. These are strategic minerals which are necessary for the prosecution of our national defense. The supply is very limited and we have heretofore, by legislation, encouraged the producers of these strategic minerals to increase our production in the United States. By the elimination of this provision of our tax law, it will remove one of the most important incentives that our miners have for producing these strategic minerals in this national emergency. The production of these minerals in the United States is much more expensive than that in foreign countries where coolie and other cheap labor can be obtained and our local producers cannot successfully meet such competition. We should build up our own supplies of these essential raw materials so that in times of emergency, such as that facing us, we shall not be compelled to rely on foreign sources. . . .

"Mr. Chairman, I trust that this provision of the tax bill will be stricken so it will permit the producer of these strategic materials to continue under the provisions of the law as it presently exists."

Cong. Record, Vol. 87, 77 Congress, First Ses-

sion, pp. 6725-26—Mr. Scrugham “ . . . It is fully recognized by all of the agencies of the Federal Government that the strategic metals named in the above quoted law are absolutely necessary to the defense of this country in the present emergency and that without them, our position becomes grave, indeed. The above section of the law was passed by the Congress and approved by the President for the express purpose of developing and bringing into production every possible domestic source of these metals.

“The Defense Agencies of our Government have urged the mining men of the United States to seek and produce the vitally needed metals in large quantities, and in responding to the requests of their Federal Government, literally hundreds of these men have made heavy commitments. . . .

“It must be emphasized and realized that these properties are uneconomic except at the present time, and that they cannot produce at the end of the emergency when cheap foreign metals will again fulfill the normal demand. . . .”

“The elimination of this exemption from the excess profits tax will actually result in loss of revenue to the Government instead of increased revenues, because the throttling of incentive to seek and develop the marginal ores will kill productive enterprise. In relying on the present law producers are venturing large amounts in prospecting and consequently are taking risks of large losses. There are two particularly strong reasons why the Committee on Ways and Means, Congress, and the executive branch of Federal Government should not eliminate this well-considered exemption:

“First. It is acting in bad faith with those who have gone ahead with the development of these metals under the appeal and encouragement previously given.

“Second. It will result in the utter discourage-

ment of any further development of ore bodies or recovery processes for these metals. . . .

" . . . The following outlines the more important facts which are particularly significant:

"1. Mining is a peculiarly hazardous industry—relying upon extraordinary profits for an occasional 'hit' to offset the losses of frequent 'misses'.

"2. Many mines are 'marginal' producers, and metal prices are widely fluctuating. For example, during the base period years, many mines were shut down or were operated at only partial capacity.

"3. Many mines were recently discovered—and many more, it is to be hoped, are awaiting discovery. In such cases, of course, their earning record (if any) is inadequate. . . .

"5. The defense program is dependent upon the success of the mining industry, which, in turn, is dependent upon continued exploration, discovery and development. . . ."

Cong. Record, Vol. 87, 77 Congress, First Session, pp. 7440-7441. Mr. McCarran:—" . . . It seems to me exceedingly unfortunate that the amendment which the senior Senator from Nevada offered, and which was adopted by the Committee on Finance and by the Senate, striking out the language of the House bill with regard to excess profits tax on strategic metals, should not have been retained in the bill. The elimination of the amendment from the bill sets up an unhappy situation in this country. Today we are striving to encourage the discovery and development of metals and minerals essential to national defense. With that in mind, the 1940 tax act carried provisions for exempting from excess profits tax mines and mining of seven strategic metals and minerals; namely, . . . chromite. . . .

" . . . We are today trying to encourage the discovery and development of these all-essential

metals in the United States because at the present time we are importing about \$20,000,000 worth or more of these metals from India, from Russia, from Brazil, from Cuba and from other countries of the world. We have tried to find in this country sufficient of these all-essential metals to afford proper relief and proper security for our national defense. With that in mind, it has been said by way of argument that the money paid out for those metals is paid out by the government in any event, and therefore is a profit; but let me say to the Senate that there is no more hazardous industry in the world than the industry of mining. No one can look with any degree of certainty into great depths in the earth; vast sums of money may be necessary to develop a mine and perhaps after the development is completed the mine itself proves nonprofitable. Only about 1 mine out of every 20 involving discovery of strategic metals makes good. So the hazard of venturing private investment in mining, especially mining of strategic metals is ever-attendant and very great.

"The result of the action of the conferees, I am afraid, will be most unfortunate. In 1940, we provided encouragement to the miners of strategic metals; and they, believing we had established a permanent policy, went forward and made vast investments. They not only did that, but prospectors went out into the field and made discoveries and developments, and having made such discoveries and developments they thought there was a basic policy on which they could go forward. I am sorry to say that now, by this act, we have destroyed the encouragement we offered to the prospector and investor and today they do not know exactly where they stand. . . ."

Senate Report No. 1631, 77 Congress, Second Session, 1942-2 C.B. 504, 536 to 538. "MINING CORPORATIONS—In order to encourage produc-

tion of minerals in connection with the war effort, certain special allowances are granted to mines. These are as follows:

"1. Special net loss carry over. . . .

"2. Excess-profits relief for accelerated production of mines.—Many mining corporations, as a result of the expanding war production, may find themselves with properties substantially or fully exhausted within a relatively short period of time. Your Committee, therefore, believes that mining corporations with limited reserves should be given some relief from excess profits taxation on income arising from such accelerated output. . . .

"3. Exemption from excess profits tax of corporations engaged in mining of strategic metals.—Under the Revenue Act of 1940, income from the mining of strategic materials was exempt from the excess profits tax. These metals were . . . chromite. . . . These minerals have been declared to be strategic by the War Production Board. This exemption was removed by the Revenue Act of 1941. Your Committee was requested by representatives of the War Production Board to restore this exemption, as these minerals are vitally needed for the war effort. . . . This amendment has been made retroactive to cover taxable years beginning after December 31, 1940."

CONCLUSION

The prospecting, the discovery and the development of mining claims are essential and indispensable steps in mining. After the ore is found and the claims are made into a mine, the extraction and processes of treating ore are merely mechanical steps that follow the basic achievement. The great smelters and foundries which turn out the finished product do not come into existence

until the sources of minerals are discovered and proven. The miner with his burro, or his modern counterpart, the miner with his jeep, who struggles along on a shoe-string and starts the development of a mineral deposit, is frequently the essential element in the creation of a big industry.

The greatest risk to capital is incurred in the initial stages of mining, the discovery and development work. After that risk is successfully taken, the much greater investment made to extract and treat the ore is comparatively safe. The appellant took the initial risk and did the essential development work on the Agnes group of mining claims, which brought the mine into actual existence for practical production during a time of critical need. Had it not been for appellant's efforts, it is likely that no such result would have occurred. As it happened, appellant's efforts resulted in the creation of a mine which was one of the largest producers of high grade chromite in the United States during an emergency when that mineral was vitally needed for the national defense.

Appellant thus performed the very activity that Congress specifically sought to encourage by enacting the tax exemption in Section 731.

Accordingly, appellant respectfully submits that it should be allowed the benefit of the tax exemption provided by that statute.

Respectfully submitted,

WM. B. MURRAY,

Attorney for Appellant.

APPENDIX A

SEC. 731, INTERNAL REVENUE CODE

"Corporations Engaged in Mining of Strategic Minerals.

"In the case of any domestic corporation engaged in the mining of . . . chromite . . . , the portion of the adjusted excess profits net income attributable to such mining in the United States shall be exempt from the tax imposed by this subchapter. The tax on the remaining portion of such adjusted excess profits net income shall be an amount which bears the same ratio to the tax computed without regard to this section as such remaining portion bears to the entire adjusted excess profits net income."

APPENDIX B

LEASE

"The lessor agrees:

"1. Oregon Chrome Mines, Inc., leases to William S. Robertson the above claims for a period of two years from date with an option of two additional years if the recovery from said claims is reasonably successful during the first two years.

"2. Oregon Chrome Mines, Inc., agrees that each year it will file with the proper authorities proof of labor for the past year so that title to said claims will remain in the corporation and locations to said claims be kept valid.

"3. Oregon Chrome Mines, Inc., will keep its corporate franchise intact, keep its corporate taxes paid, and will pay all governmental and state charges against said claims.

"The lessee agrees:

"1. To furnish such equipment, tools, and machinery, and labor as will be necessary to work said claims, and to explore said grounds to determine if the said land contains chrome ore, and if the said claims contain chrome ore he agrees to mine said claims and to ship said ore to market and to sell same to his best advantage.

No. 12856

**In the United States Court of Appeals
for the Ninth Circuit**

OREGON CHROME MINES, INC., PETITIONER

v.

COMMISSIONER OF INTERNAL REVENUE, RESPONDENT

**ON PETITION FOR REVIEW OF THE DECISION OF THE TAX
COURT OF THE UNITED STATES**

BRIEF FOR THE RESPONDENT

THERON LAMAR CAUDLE,
Assistant Attorney General.

**ELLIS N. SLACK,
HILBERT P. ZARKY,**
Special Assistants to the Attorney General.

FILED

MAY 31 1935

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v.

COMMISSIONER OF INTERNAL REVENUE, RESPONDENT

*ON PETITION FOR REVIEW OF THE DECISION OF THE TAX
COURT OF THE UNITED STATES*

BRIEF FOR THE RESPONDENT

OPINION BELOW

The findings of fact (R. 21-26), and opinion (R. 26-32) of the Tax Court, together with a dissenting opinion (R. 32-34) are reported at 15 T. C. 389.

JURISDICTION

The petition for review (R. 36-37), involves corporate excess profits tax for the taxable year 1944, in the amount of \$15,085.16. The notice of deficiency was mailed to the taxpayer on February 18, 1948. (R. 12-16.) The taxpayer filed a petition for redetermination with the Tax Court on May 17, 1948 (R. 3, 5-11), under the provisions of Section 272 of the Internal Revenue Code. The decision of the Tax Court sustaining the Commissioner's deficiency determination with respect

to the issue raised on review was entered on November 30, 1950. (R. 34-35.) The case is brought to this Court by a petition for review filed by the taxpayer on January 22, 1951 (R. 36-37), pursuant to the provisions of Section 1141 (a), Internal Revenue Code, as amended by Section 36 of the Act of June 25, 1948.

QUESTION PRESENTED

The taxpayer, as a lessor of a chrome mine, received royalty income from the lessee who operated the mine pursuant to a leasing agreement.

The question is whether the Tax Court erred in holding that such royalty income was not exempt from excess profits tax under Code Section 731 since the taxpayer, as lessor, was not engaged in the mining of chromite within the meaning of that section.

STATUTE INVOLVED

Internal Revenue Code:

SEC. 731 [as added by Sec. 226 (a), Revenue Act of 1942, c. 619, 56 Stat. 798]. CORPORATIONS ENGAGED IN MINING OF STRATEGIC MINERALS

In the case of any domestic corporation engaged in the mining of * * * chromite, * * * the portion of the adjusted excess profits net income attributable to such mining in the United States shall be exempt from the tax imposed by this subchapter. The tax on the remaining portion of such adjusted excess profits net income shall be an amount which bears the same ratio to the tax computed without regard to this section as such remaining portion bears to the entire adjusted excess profits net income.

(26 U. S. C. 1946 ed., Sec. 731.)

STATEMENT

A portion of the facts in this case were stipulated. The findings of the Tax Court may be summarized as follows:

During the First World War, the Agnes mining claims, located in Josephine County, Oregon (known as Agnes No. 1 to Agnes No. 7, inclusive), had produced approximately 5,000 tons of chrome ore. Since chrome ore is normally imported into this country, the prior owners allowed the claims to lapse and to revert to the Government some time after the conclusion of the First World War. (R. 22.)

Prior to June 24, 1941, title to the Agnes mining claims was held by Sig Dilsheimer for the benefit of himself and other persons who had contributed sums of money with the understanding that a corporation would be formed in which they would receive stock interests in return for such advances. Examination of the abandoned mining site had convinced them that there was a reasonable prospect of getting at least 5,000 more tons of chrome from these mining properties. (R. 22.)

The taxpayer corporation was organized on June 13, 1941, under the laws of the State of Oregon. Its articles of incorporation authorized the taxpayer to engage in the mining, buying and selling of all kinds of ores, metals, and minerals. It was also empowered to acquire and dispose of mining claims and property. (R. 21-22.)

On June 24, 1941, Dilsheimer conveyed the Agnes claims to the taxpayer in return for 47,997 shares of its capital stock, a portion of which he then distributed to those persons who had contributed funds prior to the taxpayer's incorporation. The remaining three

shares of taxpayer's stock were issued to Max Kreuger, J. C. Haas, and Garfield Voget, as qualifying shares and as part of the transaction whereby taxpayer acquired the mining claims. (R. 22-23.)

On July 2, 1941, taxpayer borrowed \$5,000 from Voget to use for operating expenses in developing the Agnes Mining claims. Prior to April 12, 1942, taxpayer completed several hundred feet of tunnel work and engaged in raising, drifting and cross-cutting to find ore. (R. 23.)

On April 14, 1942, taxpayer entered into a written lease with William S. Robertson by which the Agnes mining claims were leased to Robertson. (R. 23.)

The terms of the lease, in part, provided as follows (R. 23-25):

The lessor agrees:

1. Oregon Chrome Mines, Inc., leases to William S. Robertson the above claims for a period of two years from date with an option of two additional years if the recovery from said claims is reasonably successful during the first two years.

2. Oregon Chrome Mines, Inc., agrees that each year it will file with the proper authorities proof of labor for the past year so that title to said claims will remain in the corporation and locations to said claims be kept valid.

3. Oregon Chrome Mines, Inc., will keep its corporate franchise intact, keep its corporate taxes paid, and will pay all governmental and state charges against said claims.

The lessee agrees:

1. To furnish such equipment, tools, and machinery, and labor as will be necessary to work said claims, and to explore said ground to determine if the said land contains chrome ore, and if the said claims contain chrome ore he agrees to mine said claims and to ship said ore to market and to sell same to his best advantage.

2. The lessee, above named, shall open, use, and work said mines as is usual and customary in the skillful and proper mining operations of similar character, and shall perform or cause to be performed at least 1,000 man hours labor at said claims, beginning not later than May 20, 1942, and ending not later than August 20, 1942, and after he has expended said hours labor on said claims he shall have the right to cancel this lease by giving ten days' written notice to the lessor and then he shall have the right to forthwith remove any and all equipment, tools, and machinery that he has placed on said claims.

3. The lessee, above named, shall pay all expenses of operation, including labor, and shall pay all state and governmental taxes in connection with his own operation. He shall carry state industrial accident insurance.

4. The lessee, above named, agrees to pay the lessor as rent and royalty for the use and depletion of said claims and the taking of said chrome ore one-fifth or 20 per cent of any and all amounts he shall receive from sale of said ore. This 20 per cent to be a gross royalty and from 80 per cent of the amount he shall receive from the sale of said ore he shall pay for the expense of operation. In other words, the lessee is to pay the lessor a 20 per cent gross royalty.

The lessee agrees to seasonably sell the ore that he has mined and to furnish the lessor a duplicate statement of the amount received by him for the sale of said ore. Ten days after he has received his pay for the ore he agrees to pay one-fifth thereof or a 20 per cent to the lessor.

The lease, which was subsequently modified (the modification relating only to the gross royalty payable) was in effect during the taxable year 1944. Subsequent to the execution of the lease, and during the taxable year, the taxpayer's income consisted entirely of royalty payments received under the lease agreement. After the

lease was executed, the taxpayer did not, either directly or indirectly, take part in completing the development of these mining properties, or in the extraction and marketing of chrome. (R. 25.)

The taxpayer occasionally made inquiries concerning the purchase of other mining properties, but at the close of 1944 had not completed any deals for the acquisition of additional mining claims. In July, 1944, the taxpayer did authorize its attorney to purchase some previously mined chrome ore which he had been dickering for on his own, and a check for \$3,000 was issued to him for that purpose. (R. 26.)

The ore extracted from the Agnes mining claims was of a very high grade and during the period under consideration constituted one of the largest sources of high grade chrome ore in the United States. (R. 26.)

In 1944, in reply to an inquiry of the taxpayer, the Commissioner of Internal Revenue advised that it was not considered that the taxpayer was a domestic corporation engaged in mining and that its adjusted excess profits net income was not exempt from the excess profits tax under Section 731 of the Internal Revenue Code. (R. 26.)

The Tax Court specifically found that the taxpayer "was not 'engaged in the mining' of chromite within the meaning of Section 731 of the Internal Revenue Code" (R. 26), and it concluded, accordingly, that it was not entitled to the excess profits tax exemption contained in that section of the Code. (R. 26-32.)

Judge Arundel wrote a dissenting opinion, in which Judges Van Fossan, Johnson and Tietjens agreed. (R. 32-34.)

SUMMARY OF ARGUMENT

The Tax Court correctly held that the taxpayer was not exempt from excess profits tax under Section 731 of the Internal Revenue Code with respect to the royalty

income which it received as the lessor of a chrome mine. Section 731 is applicable only to a corporation "engaged in the mining of" certain specified minerals. The statute, by its plain language, is concerned only with corporations engaged in making or working a mine, and deriving income therefrom. An ordinary lessor, such as the taxpayer in this case, is clearly not engaged in doing either.

In addition to the plain language of the statute, its history and purpose are consistent only with the result reached by the Tax Court; they precluded the notion that this extraordinary tax exemption was intended to be available to a corporation which was merely the passive recipient of royalty income during the taxable year.

The fact that the taxpayer, in a previous year, had done some work in connection with the mine, does not qualify it for exemption during the taxable year. Its income during the taxable year was not derived from such activity and the taxpayer was not, in any conceivable way, engaged in mining during the taxable period involved.

ARGUMENT

The Taxpayer Was Not Engaged in Mining During the Taxable Year, and Its Royalty Income Was Not Exempt from Excess Profits Tax under Section 731, Internal Revenue Code

The narrow issue in this case is whether the royalty income received by the taxpayer, as the lessor of a chrome mine, is subject to the excess profits tax, as the Tax Court ruled, or whether, as the taxpayer claims, that income is completely exempt from the tax under Section 731, Internal Revenue Code, *supra*. The Tax Court, we believe, was altogether right in holding that the statutory exemption does not extend to a corporation which is only the passive recipient of royalties under a lease, and which does not perform any active function during the taxable year relating to the dis-

covery or severance of the minerals in place. Such a corporation is not "engaged in the mining" of strategic minerals, and the statute grants it no exemption.

In *Crane v. Commissioner*, 331 U. S. 1, 6, the Supreme Court observed that "the words of statutes—including revenue acts—should be interpreted where possible in their ordinary, everyday senses." See also *Old Colony R. Co. v. Commissioner*, 284 U. S. 552, 560. In such circumstances, it is "probably not necessary to go beyond the plain words of * * * [the statute] in search of the legislative meaning." *Helvering v. Northwest Steel Mills*, 311 U. S. 46, 49.

The plain, ordinary meaning of the statute here, as the Tax Court aptly pointed out (R. 29), covers only the active process of making mines and removing the minerals from their source. By limiting the exemption to corporations engaged in mining, Congress clearly intended that Section 731 should only apply to corporations deriving income from working a mine. Thus, the term "mining" is defined by Webster's International Dictionary (Second ed.) as the "Act or business of making or of working mines." The same source defines a "mining partnership" as an association of individuals "* * * when they actually engage in working a mining claim * * *." See *Rucks v. Burch*, 138 Tex. 79, holding that there is no mining partnership unless there is a joint operation of the property.

A lessor which derives its income solely from the receipt of royalty payments and which performs no other mining activity during the taxable year could scarcely be described as engaged in working a mine or as engaged in the mining of minerals. Giving the statute the meaning which it would have in ordinary parlance accordingly, inevitably leads to the conclusion that the taxpayer's income was not intended to be exempt from the excess profits tax.

We need scarcely point out, moreover, that since Section 731 creates an exemption from tax, it must be strictly construed. *New Colonial Co. v. Helvering*, 292 U. S. 435, 440; *White v. United States*, 305 U. S. 281, 292; *Deputy v. duPont*, 308 U. S. 488, 493; *Helvering v. Northwest Steel Mills, supra*, p. 49; *Commissioner v. Jacobson*, 336 U. S. 28, 49. The taxpayer is not entitled to claim the exemption unless the statute is applicable by its clear terms; the exemption cannot rest on "doubt," "ambiguity" or "mere implications." *United States v. Steward*, 311 U. S. 60, 71. We think it apparent, on the face of the statute, that the taxpayer here cannot meet these conditions.

The history and purpose of the statute, moreover, are persuasive that Congress used the term "mining" in its ordinary sense, and did not intend that the exemption should be applicable to corporations not actively engaged in working a mine. A corresponding section was added to the Code when the excess profits tax was imposed by Section 201 of the Second Revenue Act of 1940, c. 757, 54 Stat. 974. It had its origin in an amendment adopted by the Senate and, as it passed the Senate, the amendment would have added Section 730 to the Code as follows (H. R. 10413, 76th Cong., 3d Sess.):

SEC. 730. INCOME FROM MINING OPERATIONS.

Income derived from the mining reduction or beneficiation of tungsten, quicksilver, manganese, platinum, antimony, chromite, and tin, or the ores and material containing such metals, shall not be subject to the excess-profits tax provided for in this Act.

While the explanation given in support of the amendment by Senator Pittman (86 Cong. Record, Part 11, pp. 12347-12348) did not indicate the precise scope of the section, it should be noted that the amendment re-

lated to "income derived" from the enumerated functions; thus, although such does not seem to have been the express object of the sponsor of the amendment, it might have been possible for taxpayers to urge that it was intended to extend the exemption to any recipient of such income.

This possibility, however, was removed when the amendment was altered in conference so as to be Section 731 of the Code and to be similar to Section 731 of the Code as it relates to the taxable year here in question. For, as finally enacted, the insertion of the requirement that, to claim the exemption, the corporation must be "engaged in mining" would seem to have been designed to dispel any notion that a recipient of royalty income could claim the exemption merely because the income had its origin in the mining activities conducted by another taxpayer. Thus, in explaining the changes made by the conferees, Senator Harrison said (86 Cong. Record, Part 12, p. 12919) "we were able to work out a compromise *confining the exemption to the mining* of such metals by domestic corporations * * *." (Italics supplied.) The emphasis, it should be noted, was in relation to an active mining function, not to a passive collection of royalties.

The purpose of Section 731, moreover, is such that there would have been no cogent necessity impelling Congress to extend the tax exemption to corporations which merely receive royalties and which are not themselves currently engaged in mining activities. Section 731, which was repealed in 1941,¹ re-enacted with retroactive effect in 1942,² and amended to include additional minerals in 1943,³ had the obvious purpose of encouraging the production of these critical minerals.

¹ Section 205, Revenue Act of 1941, c. 412, 55 Stat. 687.

² Section 226, Revenue Act of 1942, c. 619, 56 Stat. 798.

³ Section 207, Revenue Act of 1943, c. 63, 58 Stat. 21.

See H. Conference Rep. No. 3002, 76th Cong., 3d Sess., pp. 55-56 (1940-2 Cum. Bull. 548, 559-560); S. Rep. No. 631, 77th Cong., 2d Sess., p. 211 (1942-2 Cum. Bull. 604, 658-659); H. Conference Rep. No. 2586, 77th Cong., 1st Sess., p. 64 (1942-2 Cum. Bull. 701, 722); H. Rep. No. 871, 78th Cong., 1st Sess., p. 58 (1944 Cum. Bull. 901, 944); S. Rep. No. 627, 78th Cong., 1st Sess., pp. 4-75 (1944 Cum. Bull. 973, 1027). Such encouragement was offered by way of an extraordinary tax advantage to mine operators who risked their capital in an uncertain venture. Such an additional incentive, however, was not necessary in case of lease owners which incurred no new capital risks or which did not undertake a new capital investment in the actual working of mines. So long as an operator would be willing to invest its capital and undertakes to work the mine, the lease owner, presumably, would be willing to accept the lease royalty payments, even though no extra tax advantage was offered with respect to such royalty payments. It is significant, moreover, that in none of the hearings, debates or committee reports was it ever suggested that this extraordinary tax exemption should be made available to corporations which merely received royalty income and which did not participate in the risk taking which is involved when a lessee corporation engages in the actual extraction process which constitutes the working of a mine. See Seidman's Legislative History of Excess Profits Tax Laws (1946-1947), pp. 12-216.

This is not to overlook the general impact of the excess profits tax on those corporations possessing an interest in mineral deposits (including lessors) which accelerated production from limited natural deposits in response to the country's war need. Relief from excess profits taxation which would otherwise have been imposed on the income from such accelerated production

was granted by Section 735 of the Code (in conjunction with Code Section 711 (a)(1) (I) and (a) (2) (K)) which was calculated to measure the amount of the relief by the extent to which production was accelerated. Even here, however, an express statutory amendment was needed to extend the relief to lessors and their royalty income.⁴ Section 731, however, with the complete exemption which it afforded to corporations engaged in mining was plainly designed to accomplish an altogether different objective, an objective which, as we have seen, would not encompass taxpayers which were the passive recipients of royalty payments.

The taxpayer points (Br. 6-7) to the stipulated fact (R. 23) that it had, in 1942, completed several hundred feet of tunnel work and had engaged in raising, drifting and cross-cutting to find ore. This, however, can have no possible significance to the issue involved here. Such activity had ceased when the lease was executed and the taxpayer performed no such function during the taxable year. During the taxable year, the taxpayer was not a corporation engaged in mining and its income was not derived from its mining activities. Furthermore, as the Tax Court pointed out (R. 30-31), the claims had previously been worked, and there is no evidence that this limited activity of the taxpayer in 1942 resulted in the discovery of any ore. Furthermore, the taxpayer took no further steps toward an active participation in mining operations there or elsewhere, so that the Tax Court was compelled to conclude that (R. 31) "in 1944 petitioner [taxpayer] was not engaged in discovering deposits of chrome ore, building mines, extracting ore or treating same." It clearly follows that the taxpayer was not engaged in "mining," as required by the statute. While the taxpayer makes the contrary contention (Br. 6), there is nothing in the

⁴ Section 208, Revenue Act of 1943, *supra*.

statute to extend the exemption to a corporation which may have been engaged in mining in some prior year, but which is not so engaged during the taxable year and which derives income from someone else's mining during the taxable year.

Finally, the taxpayer's reliance (Br. 7-8) on the ruling of the Committee on Appeals and Review, A.R.R. 6011, III-1 Cum. Bull. 377 (1924), with respect to the somewhat similar statutory language which was contained in Section 304 (c) of the Revenue Act of 1921, c. 136, 42 Stat. 227, is entirely misplaced. The situation to which the ruling was addressed was altogether different from that of this case. There, under the "tribute lease system," the taxpayer owned all the large tools used in the extraction of the ore, it exercised general supervision over the mining operations, it furnished the compressed air used in the mining operations, and did all the hoisting and hauling of the ore. All the ore was sold in the name of the taxpayer there, and the individual miners or group of miners, who were assigned particular drifts or portions of drifts to work, were compensated in accordance with the ore which they produced and the gold content of such ore. The taxpayer there, in a very real sense, was engaged in mining, the work being carried out for it by individual miners; the "tribute" leases there were somewhat similar to the "split check" leases involved in *Cresson Consolidated Gold Mining & Milling Co. v. Commissioner*, 11 T.C. 192. In the present case, with its ordinary leasing arrangement, the lessee was engaged in its own mining activities and the taxpayer cannot be considered to have been so engaged, even vicariously.

CONCLUSION

The decision of the Tax Court is correct and should be affirmed.

Respectfully submitted,

THERON LAMAR CAUDLE,
Assistant Attorney General.

ELLIS N. SLACK,
HILBRET P. ZARKY,
*Special Assistants to the
Attorney General.*

MAY, 1951.

No. 12863

United States
Court of Appeals
for the Ninth Circuit.

THE OHIO CASUALTY INSURANCE COM-
PANY, a Corporation,

Appellant,

vs.

RUTH M. PETRO and JOHN PRESTON PE-
TRO, an Infant by Ruth M. Petro, His Guar-
dian Ad Litem,

Appellees.

Transcript of Record

Appeal from the United States District Court,
Southern District of California,
Central Division.

FILED
MAY - 9 1951

PAUL F. O'BRIEN

No. 12863

United States
Court of Appeals
for the Ninth Circuit.

THE OHIO CASUALTY INSURANCE COM-
PANY, a Corporation,

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[Clerk's Note: When deemed likely to be of an important nature, errors or doubtful matters appearing in the original certified record are printed literally in *italic*; and, likewise, cancelled matter appearing in the original certified record is printed and cancelled herein accordingly. When possible, an omission from the text is indicated by printing in *italic* the two words between which the omission seems to occur.]

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NAMES AND ADDRESSES OF ATTORNEYS

For Appellant:

**BETTS, ELY AND LOOMIS,
510 So. Spring St.,
Los Angeles 13, Calif.**

For Appellees:

**LASHER B. GALLAGHER,
BERTRAND RHINE,
458 S. Spring St.,
Los Angeles 13, Calif.**



In the United States District Court, Southern
District of California, Central Division
No. 11418-Y

RUTH M. PETRO and JOHN PRESTON
PETRO, an Infant, by RUTH M. PETRO,
His Guardian ad litem,

Plaintiffs,

vs.

THE OHIO CASUALTY INSURANCE COM-
PANY, a Corporation,

Defendant.

COMPLAINT ON JUDGMENT

Plaintiffs complain of defendant and for cause
of action allege as follows:

I.

Plaintiff John Preston Petro is an infant of
tender years and at all times herein mentioned was
and now is a resident of the County of Los Angeles,
State of California. Plaintiff Ruth M. Petro is an
adult person and at all times herein mentioned was
and now is a resident of the County of Los Angeles,
State of California.

II.

Prior to the commencement of this action an
order was duly given, made and entered by the
Superior Court of the State of California, in and
for the County of Los Angeles, whereby plaintiff
Ruth M. Petro was appointed guardian ad litem of
the infant plaintiff John Preston Petro for the pur-

pose of prosecuting any and all actions for the purpose of recovering damages resulting from the death of Walter John Petro and said order has not been modified or set aside and it is now in full force and effect.

III.

Plaintiffs are the surviving wife and son, respectively, of Walter John Petro, deceased.

IV.

At all times herein mentioned the defendant The Ohio Casualty Insurance Company, was and it now is a corporation, organized and existing pursuant to the laws of the State of Ohio and duly authorized to transact in the State of California the business of issuing aviation liability insurance policies.

V.

On or about the 5th day of December, 1948, at and within the County of Los Angeles, State of California, an airplane being piloted by said Walter John Petro and an airplane being piloted by one Phillip Ray Brown collided and as a proximate result thereof the said Walter John Petro was killed.

VI.

Thereafter, the plaintiffs commenced, in the Superior Court of the State of California, in and for the County of Los Angeles, an action for damages against the said Phillip Ray Brown on account of the death of said Walter John Petro caused by the careless and negligent manner in which the said Phillip Ray Brown piloted that certain Stinson air-

plane designated NC-6034M. As a result of said action the plaintiffs recovered a judgment in their favor and against the said Phillip Ray Brown in the sum of \$50,000 and costs in the sum of \$235.70 and said judgment was duly entered on the 16th day of August, 1949, in Book 2069, Page 144 of Judgments, records of said Superior Court of the State of California, in and for the County of Los Angeles, and said judgment is now a final judgment and no part thereof has been paid and the whole of said judgment is now due, owing and unpaid.

VII.

The said airplane designated NC-6034M was, at all times herein mentioned, owned by one Harry Phipps, doing business as Phipps Flying Service.

VIII.

On or about February 29, 1948, defendant, The Ohio Casualty Insurance Company, a corporation, issued and delivered to the said Harry Phipps, doing business as Phipps Flying Service, a certain policy of insurance designated "Aviation Liability Policy" and said policy was in full force and effect at all times from and including February 29, 1948, to and including February 29, 1949. Said policy provided that said airplane designated NC-6034M was covered under said policy and also provided that the aircraft would be used for the following purposes: Private business and pleasure, passenger carrying for hire or reward, rental to others and student instructions, and that the aircraft would be

operated only by the following pilots: Any private or commercial certificated and qualified pilot, also any student pilot while under the supervision of a commercial certificated pilot having a pilot instructor's rating issued by the Civil Aeronautics Administration.

IX.

At all times herein mentioned the said Phillip Ray Brown was a private certificated and qualified pilot and was piloting said airplane designated NC-3604M pursuant to the authority of a private pilot's certificate duly issued to him by the Civil Aeronautics Administration and said certificate was in full force and effect at all times mentioned herein.

X.

Said policy also provides that the defendant, The Ohio Casualty Insurance Company, a corporation, agreed "to pay on behalf of the Insured all sums which the Insured shall become obligated to pay by reason of the liability imposed upon him by law for damages, including damages for care and loss of services, because of bodily injury, including death at any time resulting therefrom, sustained by any person or persons, other than passengers, caused by accident and arising out of the ownership, maintenance or use of the aircraft."

XI.

Said policy provides that the term "Insured" shall include not only the Named Insured, Harry Phipps, doing business as Phipps Flying Service,

but also any other person while riding in, or a pilot approved thereunder, as hereinabove alleged, while operating such aircraft, provided such operation is with the permission of the Named Insured.

XII.

On the date and at the time of the collision between the two airplanes hereinabove referred to, the said airplane designated NC-6034M was being operated by said Phillip Ray Brown with the permission of the said Harry Phipps, doing business as Phipps Flying Service.

XIII.

Said policy also provides that the defendant, The Ohio Casualty Insurance Company, a corporation, will pay all costs taxed against the Insured and all interest accruing after entry of judgment until the defendant has paid, tendered or deposited in court, such part of such judgment as does not exceed the limit of the company's liability thereon.

XIV.

Said policy provides for a limit of liability in the sum of \$50,000 by reason of the death of any one person in one accident.

XV.

Said policy also provides that any person who has secured a judgment against the Insured shall thereafter be entitled to recover under the terms of the policy in the same manner and to the same extent as the Insured.

XVI.

Plaintiffs allege that all conditions precedent have been performed.

Wherefore, plaintiffs pray judgment against the defendant in the sum of \$50,235.70, together with interest thereon at the rate of 7% per annum from August 16, 1949, until paid, and for plaintiffs' costs of suit incurred in this action.

LASHER B. GALLAGHER, and
BERTRAND RHINE,

By /s/ BERTRAND RHINE,
Attorneys for Plaintiffs.

United States of America,
Northern District of Ohio—ss.

Ruth M. Petro, being first duly sworn, deposes and says: That she is one of the Plaintiffs in the above-entitled action; that she has read the foregoing Complaint on Judgment and knows the contents thereof; and that the same is true of her own knowledge, except as to the matters which are therein stated upon her information or belief, and as to those matters that she believes it to be true.

/s/ RUTH M. PETRO.

Subscribed and sworn to before me this 6th day of April, 1950.

[Seal] /s/ DUDLEY DRACH,
Notary Public in and for the County of Cuyahoga,
State of Ohio.

Receipt of Copy acknowledged.

[Endorsed]: Filed April 11, 1950.

[Title of District Court and Cause.]

ANSWER OF THE OHIO CASUALTY
INSURANCE COMPANY

Comes Now the defendant, The Ohio Casualty Insurance Company, a corporation, and in answer to plaintiffs' complaint admits, denies and alleges as follows:

I.

In answer to Paragraph VI admits that the said judgment and the whole thereof is unpaid, but denies that the payment of said judgment, or any part thereof, is now or at any other time was due from this defendant, and denies that the payment of said judgment, or any part thereof, is or at any other time was owing from this defendant.

II.

In answer to Paragraph VIII admits that the said policy contained the provisions alleged in Paragraph VIII, but alleges that the provisions alleged in Paragraph VIII were not the only provisions contained in the said policy with respect to the insuring agreements, conditions and exclusions of the said policy. A true and complete copy of said policy is attached hereto as Exhibit "A" and made a part of this answer, except that the following matter contained in the said policy has been omitted from the said Exhibit "A": Various indorsements which pertain only to the addition of certain airplanes to the list of those covered under the said policy or to the withdrawal of certain airplanes

from the list of those covered under the said policy, none of which indorsements pertain to the said airplane NC-6034N, and certain indorsements pertaining to the premium earned during certain periods.

III.

In answer to Paragraph IX, alleges that it lacks information or belief sufficient to enable it to answer the allegation that the said Phillip Ray Brown was a qualified pilot, and basing its denial upon such lack of information or belief denies that the said Phillip Ray Brown was a qualified pilot.

IV.

In answer to Paragraph X, alleges that the provisions of the policy alleged in Paragraph X were not all of the provisions of the policy with respect to the obligations of the insurer thereunder, and in this respect alleges that the obligations of the insurer were such as were set forth in the said policy made a part thereof as said Exhibit "A."

V.

In answer to Paragraph XI, denies generally and specifically each and every allegation contained therein. In this respect defendant alleges that the persons covered under the said policy in addition to the said named assured, Harry Phipps, doing business as Phipps Flying Service, were those, and only those, specified in Clause III of "Insuring Agreements" of said policy, said Clause III being entitled "Additional Insured."

VI.

In answer to Paragraph XVI, defendant admits that at all times mentioned in the complaint the said policy was in full force and effect, but denies that the said Phillip Ray Brown had performed any conditions precedent or any conditions at all with respect to the said policy, and denies that the said Phillip Ray Brown was a person insured under the said policy.

Special Affirmative Defense

I.

For a Further, Separate and Affirmative Defense to Plaintiffs' Complaint Defendant Alleges as Follows:

That the said policy in Clause III of "Insuring Agreements" excluded from the coverage afforded by the said policy

"(e) any persons other than officers, executives and employees of the named Insured, or any agent of the named Insured, if the business of the named Insured (insured as such) is that of an aircraft manufacturer, or aircraft engine manufacturer, or aircraft repair or service station, or aircraft sales agency, or hangar keeper, or airport operator;

"(f) or any person who is a student or renter pilot."

That the time of the accident alleged in the complaint, the said Phillip Ray Brown was a student pilot and was piloting the airplane alleged to have

collided with the airplane piloted by the said Walter John Petro in the course of his training as a student pilot; that the said airplane being piloted by the said Phillip Ray Brown at the time of the said accident was rented from the said Harry Phipps, doing business as Phipps Flying Service, for the use of the said Phillip Ray Brown and the said Phillip Ray Brown was operating the said airplane as a renter pilot. That at all times mentioned in the complaint the said Harry Phipps, doing business as Phipps Flying Service, was a hangar keeper, and at none of the times mentioned in the complaint was the said Phillip Ray Brown an officer or executive or employee of the said Harry Phipps and at none of the times mentioned in the complaint was the said Phillip Ray Brown an officer or executive or employee of any person, firm, or corporation covered under the said policy.

Wherefore, defendant prays that plaintiffs take nothing herein and that this defendant be awarded judgment for its costs of suit herein incurred.

PARKER, STANBURY,
REESE & MCGEE,

By /s/ WHITE MCGEE, JR.,
Attorneys for Defendant, The Ohio Casualty Insurance Company, a corporation.

[Exhibit A attached to the foregoing Answer is identical to Plaintiffs' Exhibit No. 3. See pages 124 to 136 of this printed record.]

State of California,
County of Los Angeles—ss.

White McGee, Jr., being first duly sworn, deposes and says: That he is one of the attorneys for the defendant, The Ohio Casualty Insurance Company, a corporation, in the above-entitled action; that he makes this verification for and on behalf of the said defendant for the reason that the said defendant has no officer in the County of Los Angeles, State of California, the county in which affiant has his office.

By /s/ WHITE McGEE, JR.

Subscribed and sworn to before me this 15th day of May, 1950.

[Seal] /s/ MARY O. TERPENNING,
Notary Public in and for the County of Los Angeles, State of California.

[Endorsed]: Filed May 15, 1950.

[Title of District Court and Cause.]

FINDINGS OF FACT AND CONCLUSIONS OF LAW

The above-entitled action came on regularly to be tried on the 5th day of December, 1950, before the Honorable Leon R. Yankwich, United States District Judge, trial by jury having been expressly waived by both parties, the plaintiffs appearing by Lasher B. Gallagher, Esq., and Bertrand Rhine, Esq., and the defendant appearing by White Mc-

Gee, Jr., Esq., of Parker, Stanbury, Reese & McGee, and evidence both oral and documentary having been introduced, the action was submitted on the testimony taken in open court, together with exhibits offered in evidence in connection therewith, and the parties having agreed that the sole and exclusive issue relied upon by the defendant was whether or not Philip Ray Brown was a "student pilot" or "renter pilot" as said words are used in the Aviation Liability Policy issued by the defendant, and counsel for the respective parties having fully argued the issues; and the Court being fully advised in the premises, now makes the following Findings of Fact:

Findings of Fact

I.

Plaintiff John Preston Petro is an infant of tender years and at all times herein mentioned was and now is a resident of the County of Los Angeles, State of California. Plaintiff Ruth M. Petro is an adult person and at all times herein mentioned was and now is a resident of the County of Los Angeles, State of California.

II.

Prior to the commencement of the above-entitled action an order was duly given, made and entered by the Superior Court of the State of California, in and for the County of Los Angeles, whereby plaintiff Ruth M. Petro was appointed guardian ad litem of the infant plaintiff John Preston Petro

for the purpose of prosecuting any and all actions for the purpose of recovering damages resulting from the death of Walter John Petro and said order has not been modified or set aside and it is now in full force and effect.

III.

Plaintiffs are the surviving wife and son, respectively, of Walter John Petro, deceased.

IV.

At all times herein mentioned the defendant The Ohio Casualty Insurance Company, was and it now is a corporation, organized and existing pursuant to the laws of the State of Ohio and duly authorized to transact in the State of California the business of issuing aviation liability insurance policies.

V.

On or about the 6th day of December, 1948, at and within the County of Los Angeles, State of California, an airplane being piloted by said Walter John Petro and an airplane being piloted by one Philip Ray Brown collided and as a proximate result thereof the said Walter John Petro was killed.

VI.

Thereafter the plaintiffs commenced in the Superior Court of the State of California, in and for the County of Los Angeles, an action for damages against the said Philip Ray Brown on account of the death of said Walter John Petro caused by the careless and negligent manner in which the said

Philip Ray Brown piloted that certain Stinson airplane designated NC-6034M. As a result of said action the plaintiffs recovered a judgment in their favor against the said Philip Ray Brown in the sum of \$50,000 and costs in the sum of \$235.70 and said judgment was duly entered on the 16th day of August, 1949, in Book 2069, Page 144 of Judgments, records of said Superior Court of the State of California, in and for the County of Los Angeles, and said judgment is now a final judgment and no part thereof has been paid and the whole of said judgment is now due, owing and unpaid. It is true that the payment of said judgment was and is owing from the defendant to the plaintiffs.

VII.

That said airplane designated NC-6034M, at all times herein mentioned, was owned by one Harry Phipps, doing business as Phipps Flying Service.

VIII.

On or about February 29, 1948, defendant, The Ohio Casualty Insurance Company, a corporation, issued and delivered to the said Harry Phipps, doing business as Phipps Flying Service, a certain policy of insurance designated "Aviation Liability Policy" and said policy was in full force and effect at all times from and including February 29, 1948, to and including February 29, 1949. Said policy provided that said airplane designated NC-6034M was covered under said policy and also provided that the aircraft would be operated only by the following pilots: Any private or commercial certificated and qualified pilot also any student pilot

while under the supervision of a commercial certificated pilot having a pilot instructors rating issued by the Civil Aeronautics Administration. It is true that a true and complete copy of said policy, with the exception of various endorsements which pertain only to the addition of certain airplanes to the list of those covered under the said policy or to the withdrawal of certain airplanes from the list of those covered under the said policy, none of which endorsements pertain to airplane NC-6034M and certain endorsements pertaining to the premium earned during certain periods, is attached to defendant's Answer as Exhibit "A."

IX.

At all times herein mentioned the said Philip Ray Brown was a private certificated and qualified pilot and was piloting said airplane designated NC-6034M pursuant to the authority of a private pilot certificate duly issued to him by the Civil Aeronautics Administration and said certificate was in full force and effect at all times mentioned herein.

X.

Said policy also provides that the defendant, The Ohio Casualty Insurance Company, a corporation, agreed "to pay on behalf of the Insured all sums which the Insured shall become obligated to pay by reason of the liability imposed upon him by law for damages, including damages for care and loss of services, because of bodily injury, including death at any time resulting therefrom, sustained

by any person or persons, other than passengers, caused by accident and arising out of the ownership, maintenance or use of the aircraft."

XI.

Said policy provides that the term "Insured" shall include not only the Named Insured, Harry Phipps, doing business as Phipps Flying Service, but also any other person while riding in, or a pilot approved thereunder, as hereinabove set forth, while operating such aircraft, provided such operation is with the permission of the Named Insured.

XII.

On the date and at the time of the collision between the two airplanes hereinabove referred to, the said airplane designated NC-6034M was being operated by said Philip Ray Brown with the permission of the said Harry Phipps, doing business as Phipps Flying Service.

XIII.

Said policy also provides that the defendant, The Ohio Casualty Insurance Company, a corporation, will pay all costs taxed against the Insured and all interest accruing after entry of judgment until the defendant has paid, tendered or deposited in court, such part of such judgment as does not exceed the limit of the company's liability thereon.

XIV.

Said policy provides for a limit of liability in the sum of \$50,000 by reason of the death of any one person in one accident.

XV.

Said policy also provides that any person who has secured a judgment against the Insured shall thereafter be entitled to recover under the terms of the policy in the same manner and to the same extent as the Insured.

XVI.

It is true that all conditions precedent have been performed.

XVII.

Said policy was in full force and effect at all times mentioned in the complaint and the said Philip Ray Brown was a person insured under the said policy.

XVIII.

The Court finds that the parties, by agreement, have limited the disputed issues as raised by the pleadings to the following: Was Philip Ray Brown, at the time of the accident on December 5, 1948, a "student pilot" and "renter pilot" or a "student pilot" or "renter pilot" within the meaning of those words as used in the policy issued by the defendant?

XIX.

It is not true that at the time of the accident alleged in the complaint the said Philip Ray Brown was a student pilot or was piloting the airplane alleged to have collided with the airplane piloted by said Walter John Petro in the course of his training as a student pilot, but was piloting said airplane pursuant to his privilege and authority as the holder of a valid and effective private pilot certificate there-

tofore issued to him by the Civil Aeronautics Administration.

XX.

It is not true that the said Philip Ray Brown was operating the said airplane as a renter pilot. It is not true that said Philip Ray Brown was a renter pilot. It is not true that the said Harry Phipps, doing business as Phipps Flying Service, was a hangar keeper. It is true that at none of the times mentioned in the complaint was the said Philip Ray Brown an officer or executive or employee of the said Harry Phipps or an officer or executive or employee of any person, firm, or corporation covered under the said policy.

XXI.

On December 5, 1948, there was in full force and effect a written contract executed by and between Harry Phipps, doing business as Phipps Flying Service, and the Veteran's Administration, an agency of the United States Government, and pursuant to the terms of said written contract the said Harry Phipps, doing business as Phipps Flying Service furnished for the use of said Philip Ray Brown on said December 5, 1948, said airplane designated NC-6034M.

XXII.

The Court finds that the words "student pilot" as used in the policy of insurance issued by the defendant were intended to and do mean a person holding a valid "student pilot certificate" issued pursuant to the provisions of Part 20 of the Civil Air Regulations and the Court also finds that the words "stu-

dent pilot" as used in the policy of insurance issued by the defendant were not intended to and do not refer to any person holding a valid private pilot certificate issued pursuant to the provisions of Part 20 of the Civil Air Regulations. The Court finds that the words "private certified and qualified pilot" as used in the policy issued by the defendant mean and refer to a person holding a valid "private pilot certificate" issued pursuant to the provisions of Part 20 of the Civil Air Regulations.

XXIII.

The Court finds that on December 5, 1948, at the time of the accident referred to in plaintiffs' complaint, the said Philip Ray Brown was a private certificated and qualified pilot and as such was a pilot approved under the policy.

Conclusions of Law.

I.

Plaintiffs are entitled to judgment against the defendant in the principal sum of \$50,235.70, with interest thereon at the rate of 7% per annum from August 16, 1949, until paid, which said interest, to and including December 26, 1950, amounts to the sum of \$4,788.19, together with plaintiffs' costs of suit incurred herein.

The Clerk is directed to enter judgment accordingly.

Dated: January 3, 1951.

/s/ LEON R. YANKWICH,

United States District Judge.

Receipt of Copy acknowledged.

[Endorsed]: Filed January 3, 1950.

In the United States District Court, Southern
District of California, Central Division
No. 11418-Y

RUTH M. PETRO and JOHN PRESTON
PETRO, an Infant, by RUTH M. PETRO, his
Guardian ad litem,

Plaintiffs,

vs.

THE OHIO CASUALTY INSURANCE COM-
PANY, a Corporation,

Defendant.

JUDGMENT

The above-entitled action came on regularly to be tried on the 5th day of December, 1950, before the Honorable Leon R. Yankwich, United States District Judge, trial by jury having been expressly waived by both parties, the plaintiffs appearing by Lasher B. Gallagher, Esq., and Bertrand Rhine, Esq., and the defendant appearing by White McGee, Jr., Esq., of Parker, Stanbury, Reese & McGee, and evidence both oral and documentary having been introduced, the action was submitted on the testimony taken in open court, together with exhibits offered in evidence in connection therewith, and the parties having agreed that the sole and exclusive issue relied upon by the defendant was whether or not Philip Ray Brown was a "student pilot" or "renter pilot" as said words are used in the Aviation Liability Policy issued by the defendant, and counsel for the respective parties having

fully argued the issues; and the Court being fully advised in the premises and having rendered its decision directing a judgment in favor of the plaintiffs and against the defendant; and written Findings of Fact and Conclusions of Law having been duly made in accordance therewith, and the plaintiffs' costs having been duly taxed in the sum of \$111.05;

It Is Hereby Ordered, Adjudged and Decreed that Plaintiffs, Ruth M. Petro and John Preston Petro, an infant, by Ruth M. Petro, his guardian ad litem, recover from the defendant, The Ohio Casualty Insurance Company, a corporation, the principal sum of \$50,235.70, with interest thereon at the rate of 7% per annum from August 16, 1949, until paid, which said interest, to and including December 26, 1950, amounts to the sum of \$4,788.19, together with plaintiffs' costs as taxed.

Dated: January 3, 1951.

/s/ LEON R. YANKWICH,

United States District Judge.

Approved as to form:

PARKER, STANBURY,

REESE & McGEE,

Attorneys for Defendant.

Memorandum to Clerk Re Interest

Interest on the principal sum of \$50,235.70 is payable at the rate of \$9.634 per day.

Judgment entered Jan. 3, 1951.

Receipt of copy acknowledged.

[Endorsed]: Filed January 3, 1951.

[Title of District Court and Cause.]

NOTICE OF APPEAL

To the Plaintiffs in the Above-Entitled Action,
Lasher B. Gallagher and Bertrand Rhine,
Their Attorneys, and to the Clerk of the Above-
Entitled Court:

You and Each of You Will Please Take Notice
that the defendant Ohio Casualty Insurance Com-
pany hereby appeals to United States Court of
Appeals for the Ninth Circuit, from the judgment
heretofore entered in the above action on January
3, 1951, in Book No. 70, Page 126, of records of the
above-entitled court, and from the whole of said
judgment.

PARKER, STANBURY,
REESE & McGEE,

By /s/ WHITE McGEE, JR.

Attorneys for defendant.

Affidavit of Service by Mail attached.

[Endorsed]: Filed January 22, 1951.

[Title of District Court and Cause.]

REQUEST FOR CLERK'S TRANSCRIPT AND
REPORTER'S TRANSCRIPT ON APPEAL

To the Clerk of the Above-Entitled Court:

The defendant Ohio Casualty Insurance Company having filed its notice of appeal to the Circuit Court of Appeals for the Ninth Circuit from the whole of the judgment heretofore rendered in said action, you are hereby requested to prepare a transcript of the record in the above-entitled action for transmittal to the said Court of Appeals. The said record shall consist of copies of all pleadings, the findings of fact and conclusions of law and the direction for the entry of judgment thereon, the opinion of the court, the notice of appeal with date of filing, the designations of the parties as to matter to be included in the record, all stipulations of the parties appearing in the clerk's records, minutes, and proceedings, the whole of the judgment from which this appeal is taken, all exhibits introduced into evidence except the parts thereof required by law to be deleted from a record on appeal, and the stenographic reporter's transcript of all the evidence, stipulations and proceedings on the trial of the said action. The clerk is further requested to direct the stenographic reporter at the trial of the said action to prepare the said reporter's tran-

script with such copies thereof as are required by law.

PARKER, STANBURY,
REESE & McGEE,

By /s/ WHITE McGEE, JR.

Attorney for defendant, The
Ohio Casualty Insurance
Company, a corporation.

Affidavit of Service by Mail attached.

[Endorsed]: Filed January 22, 1951.

[Title of District Court and Cause.]

DESIGNATION OF CONTENTS OF
RECORD ON APPEAL

To the Clerk of the Above-Entitled Court, to the
Plaintiffs in the Above-Entitled Action, and to
Their Attorneys, Lasher B. Gallagher and
Bertrand Rhine:

You, and Each of You, Will Please Take Notice
that the defendant The Ohio Casualty Insurance
Company hereby makes its designation of the por-
tions of the record, proceedings and evidence to be
contained in the record on appeal:

1. All the pleadings.
2. The findings of fact and conclusions of law,
together with the direction for the entry of judg-
ment thereon.

3. The opinion of the Court.
4. The judgment.
5. The notice of appeal with date of filing.
6. The designations and stipulations of the parties as to matter to be included in the record.
7. All Exhibits.
8. The stenographic reporter's transcript of all the evidence and all the proceedings and stipulations at the trial of the above-entitled action, including the opinion of the Court.

The said transcript has not been filed because it has not yet been completed, but the stenographic reporter reporting the said trial has been requested to prepare the said transcript and is now preparing it. Defendant will file the said transcript promptly when the preparation of it has been completed.

PARKER, STANBURY,
REESE & McGEE,

By /s/ WHITE McGEE, JR.

Attorneys for Defendant, The Ohio Casualty Insurance Company, a corporation.

Approved as to form:

LASHER B. GALLAGHER and
BERTRAND RHINE,

By /s/ LASHER B. GALLAGHER.

Receipt of copy acknowledged.

[Endorsed]: Filed January 30, 1951.

In the United States District Court, Southern
District of California, Central Division
No. 11,418-Y Civil

RUTH M. PETRO and JOHN PRESTON
PETRO, an Infant, by RUTH M. PETRO, his
guardian ad litem,

Plaintiffs,

vs.

THE OHIO CASUALTY INSURANCE COM-
PANY, a Corporation,

Defendant.

Honorable Leon R. Yankwich, Judge Presiding.

Reporter's Transcript of Proceedings

December 5, 1950

Appearances:

For the Plaintiffs:

LASHER B. GALLAGHER, ESQ.,
458 South Spring Street,
Los Angeles, California,

BERTRAND RHINE, ESQ.,
729 Citizens National Bank Bldg.,
Los Angeles, California.

For the Defendant:

PARKER, STANBURY, REESE &
McGEE,
WHITE McGEE, JR., ESQ.,
707 South Hill Street,
Los Angeles, California.

Tuesday, December 5, 1950—10:30 A.M.

The Clerk: 11418-Y, Ruth M. Petro and John Preston Petro, an infant, by Ruth M. Petro, his guardian ad litem, v. The Ohio Casualty Insurance Company, a corporation.

Mr. Gallagher: Ready for the plaintiffs.

Mr. McGee: The defendant is ready.

The Clerk: Will counsel state they have waived the jury, for the record?

Mr. Gallagher: So far as the plaintiff is concerned, she waives a jury trial.

Mr. McGee: The defendant has waived.

The Court: Proceed, gentlemen.

Opening Statement on Behalf of the Plaintiff

By Mr. Gallagher:

May it please the Court, in this matter I believe that I can state for both sides that the sole and only issue of law and/or fact, if there is any question of fact in the case, will be and is whether Philip Ray Brown was, on December 5, 1948, at the time of the happening of the events out of which this litigation arose, "a student or renter pilot."

If Mr. Philip Ray Brown was at the time "a student or renter pilot," then he was not an additional insured under the policy, and the defendant would be entitled to a judgment. [2*]

If, on the other hand, Philip Ray Brown was not at that time "a student or renter pilot," the plaintiffs are entitled to judgment.

The Court: As I understand, judgment has been obtained against the insured.

* Page numbering appearing at top of page of original Reporter's Transcript of Record.

Mr. Gallagher: The defendant claims that the man against whom the judgment was obtained, if your Honor please, was not an insured.

The Court: I understand that. The claimed insured.

Mr. Gallagher: Yes, your Honor.

The Court: The claimed insured. I should have put it that way.

Mr. Gallagher: We have obtained a judgment which is final against the person we claim is an additional insured, pursuant to the provisions of subdivision III of the insurance agreement in the policy.

I believe that a true and correct copy of the portions of the policy which are of importance here is attached to the defendant's answer.

Now, the plaintiffs will state the facts as they understand them to be, which are as follows:

The claimed insured, Philip Ray Brown, was a member of the armed forces of the United States during World War II, and as a result of that service he was entitled to certain training under the GI Bill of Rights. [3]

He went to a certain flying school, not the one referred to in the pleadings, and commenced taking a course in order to become a qualified and certificated pilot. Prior to taking any instruction in that course, he was issued, as was required by the provisions of the Civil Air Regulations, a student pilot permit or certificate, as it might also be called.

He took a course of instruction consisting of ground instruction and flight training, and, as I

understand the facts, he did not quite finish the preliminary course at the first school. He then transferred to the school owned and conducted by a Mr. Phipps, who is the named insured under the policy.

Mr. Phipps had a contract likewise with the Veterans Administration, and that contract required Mr. Phipps to furnish to qualified veterans such training and the use of equipment as might be required for the purpose of attaining two types of licenses: one, a private pilot's certificate or license, also sometimes referred to as an airman's certificate. And, second, a commercial pilot's certificate.

Now, this young man, Mr. Philip Ray Brown, obtained his private pilot's certificate with what is called a single-engine land airplane rating sometime early in the year 1948. I think the evidence will show that that private pilot's certificate was issued to him in or about the month of March, 1948. [4]

Between the time he obtained that certificate and the time of the accident on December 5, 1948, he was at all times a duly and regularly certificated and qualified pilot. During that time he had accumulated some 130 or 150 hours of solo flight.

On December 5, 1948, Mr. Brown was piloting, as the sole person in command and charge, an airplane owned by Mr. Phipps and furnished by Mr. Phipps to Mr. Brown and paid for on an hourly basis by the Government, pursuant to the contract.

Now, I will call your Honor's attention to the fact that the regulations pursuant to which the various types of pilot's certificates are set forth are in the Civil Air Regulations, in Part 20.

The Court: Mr. Gallagher, as these would have to be offered in evidence, unless they are published in the Federal Register, I do not take judicial notice of them. I think you had better confine yourself to referring to them, and let us get down to what facts have to be offered that cannot be stipulated, after I hear from Mr. McGee as to his conception of the issues.

Mr. Gallagher: Very well, your Honor. The evidence will show, and your Honor has it before you, that the policy provides that the aircraft will be used only for the [5] following purposes: "Private business and pleasure, passenger carrying for hire or reward, rental to others and student instruction.

"The aircraft will be operated only by the following pilots: Any private or commercial certificated and qualified pilot, also any student pilot while under the supervision of a commercial certificated pilot having a pilot instructor's rating issued by the C.A.A."

Our evidence will show that Mr. Brown was, at the time, a private and qualified pilot, duly certificated. He was flying the airplane——

The Court: In other words, the problem here is that you claim he comes under the main coverage and they claim he comes under the exception.

Mr. Gallagher: Yes, your Honor. We claim that a student pilot is a pilot who is certificated as such, and that Mr. Brown, being a duly qualified and certificated private pilot, and pursuant to his license, being able to fly the type of airplane any-

where within the limits of the United States, without any further ado, as long as he could get the permission of the owner of the aircraft to do so, was not a student pilot but was one of the other classes of pilots mentioned in the policy.

The Court: In other words, it is more like a lawyer taking a refresher course—— [6]

Mr. Gallagher: Yes, your Honor, or a doctor.

The Court: ——than a law student?

Mr. Gallagher: That is right. Or a doctor taking a postgraduate course might be a student physician. We claim this man was not a renter pilot because we respectfully submit that “renter” is an adjective and defines pilot. This man did not rent the airplane, didn’t agree to pay for it, and wasn’t billed for it.

The Court: All right. Mr. McGee.

Opening Statement on Behalf of the Defendant
By Mr. McGee:

Your Honor, Mr. Gallagher has made a statement of facts which is substantially correct. I might supplement them to this extent: As has been stated, at the time of this accident Philip Ray Brown was in the course of training at this flying school for a commercial pilot’s license. His activities in connection with the flight resulting in the accident were wholly within the course of his training in this school as a student. He still had a good many hours to complete before he was qualified and could take his examination for a student or commercial pilot’s license.

He was at all times, so far as any activities related to this accident were concerned, under the supervision of the school. The flight that he was taking at the time this accident happened was under supervision in that he had been told [7] by the instructor at the school what he was to do on that particular day, the area in which he was to fly.

He never went up unless he was told he could go up. He never went up unless the school told him weather conditions were right and unless he was acting under their instructions.

We contend that he was both a student and a renter pilot within the meaning of clause III of the insuring agreements, which your Honor has referred to as exclusions. I think, as we get into the case, it will probably appear that these are not exclusions, at least in a technical sense, but we are dealing with the insuring agreement itself.

I assume that your Honor cares for a minimum of argument.

The Court: That is right. I do not want the argument now. I want facts. I merely want an opening statement to see what the issues are.

Mr. McGee: I will make this statement, your Honor, as to our claim with reference to the student pilot phase of this question: The part of the policy which Mr. Gallagher referred to, containing the wording: "The aircraft will be operated only by the following pilots: Any private or commercial certificated and qualified pilot, also any student pilot while under the supervision of a commercial certificated pilot having a pilot instructor's rating

issued by the C.A.A.," is a part of the declarations of the policy defining the uses to which the subject airplanes will be put. In other [8] words, it defines the scope of the insurance as to the named assured, Harry Phipps, doing business as Phipps Flying Service. This is in the declarations defining the uses to which a plane must be put in order for the coverage to attach.

The insuring agreement, clause III, in defining "insured" excludes from the coverage any student pilot. Our claim is that Mr. Phipps and his flying school were covered, provided the uses were such as specified in the declarations, but in no event was a student pilot covered. It is our contention Philip Ray Brown was a student pilot.

Next, that he was also a renter pilot. The clause here was in the disjunctive, "student or renter pilot." He was a renter pilot, in that the rental or hiring of the plane was paid for by the Government as a part of the course he was taking. It was paid by the Government on his behalf. He was as much a renter pilot as if he himself had paid the money. It was paid on his behalf, and he was availing himself——

The Court: I do not think the relationship of renter and owner is determined by the question of who pays the rent. The relationship is determined by other criteria. I presume the word "renter" there is used in the sense of hire, that is, it is a temporary letting or hiring of the use of an airplane for a definite period, for which a definite sum is paid.

Mr. McGee: That is our position precisely.

The Court: It is like the rental of an automobile. [9] Eliminating taxicabs, we have such companies as the Tanner Company, who for many, many years have been engaged in the business of renting automobiles. You call them up and they will rent you an automobile with a driver and everything that goes with it, for an hour or for a day. And whether you pay it or charge it to your company or anyone else does not affect the relationship.

Mr. McGee: That is exactly our position.

The Court: Well, I am just giving my reaction to your statement. I am not deciding any question. I am just trying to figure out what facts will be necessary to be proved.

We have two depositions here, gentlemen. I do not know what they are. They have not been opened. If you are ready for them I will order the clerk to open them for such use as you may desire to make of them.

Mr. Gallagher: We would like to have them opened, your Honor, although the witnesses are here.

The Court: That is all right. You may want to use them for cross-examination.

Mr. Gallagher: Mr. Brown.

PHILIP R. BROWN

called as a witness by and on behalf of the plaintiffs, being first duly sworn, was examined and testified as follows:

The Clerk: What is your name, please?

The Witness: Philip R. Brown. [10]

Direct Examination

By Mr. Gallagher:

Q. Mr. Brown, where do you live?

A. 11828 Chandler.

Q. What is your age? A. 30.

Q. Were you in the armed services during the last World War? A. Yes, sir.

Q. As such, did you take advantage of the GI Bill of Rights and start at some time to learn how to fly an airplane? A. Yes, sir.

Q. At what school did you start to learn to fly?

A. Compton Air College, in Compton, California.

Q. That school had nothing whatever to do with Mr. Phipps? A. No, sir.

Q. Now, before you took any flight instruction did you obtain a student pilot's certificate or permit? A. Yes, sir.

Q. How long did you hold that student pilot's certificate or permit?

A. I don't know, I don't remember it. About three or four months, or longer, I guess.

Q. Was that a certificate or permit issued to

(Testimony of Philip R. Brown.)

you by [11] a representative of the Civil Aeronautics Authority of the United States Government?

A. Yes.

Q. An agency of the Government?

A. Yes, sir.

Q. During that period when you had the student pilot's permit, did you build up a sufficient number of solo hours to permit you to take an examination, both written and flight, for the purpose of acquiring an actual rating as a pilot?

A. Private pilot.

Q. Did you take the number of hours and take the examination in order to acquire the private pilot's certificate? A. Yes, sir.

Q. Were you at the Compton Air College at Compton when you obtained your airman's certificate and your private pilot rating? A. No.

Q. Where were you at the time you obtained your airman's certificate and your private pilot's rating from the C.A.A., Civil Aeronautics Administration or Authority?

A. San Fernando, Phipps Flying Service.

Q. Prior to the time you obtained the airman's certificate or private pilot's certificate, whatever you want to call it, had you built up a sufficient number of hours to permit you to do that? [12]

A. Yes.

Q. Did you take a written examination?

A. I took one, yes.

Q. Now, in order to qualify as a private pilot,

(Testimony of Philip R. Brown.)

upon what subjects were you examined, so far as the written examination was concerned?

A. Civil Air Regulations. It was traffic, air traffic.

Mr. Gallagher: Maybe we can cut this short. I will try.

Q. (By Mr. Gallagher): Mr. Brown, did you take an examination covering all of the subjects referred to in the Civil Air Regulations as requisite for the issuance of a private pilot's certificate?

A. Yes, sir.

Q. For a rating as a private pilot for single-engine land airplanes? A. Yes.

Q. Did some qualified representative of the Civil Aeronautics Authority or Administration issue to you at that time such a private pilot's certificate and rating? A. Yes, sir.

Q. Your answer is "Yes"? A. Yes.

Q. Now, was that rating for single-engine land airplanes? A. Yes. [13]

Q. Were there any restrictions with reference to horsepower, so long as the airplane was a single-engine land airplane? A. I don't think so.

Q. Were you, on December 5, 1948, involved in an airplane accident? A. Yes, sir.

Q. You were flying one of Mr. Phipps' airplanes? A. Yes, sir.

Q. At that time were you a private certificated and qualified pilot?

A. I had a private pilot's certificate.

Q. You had it with you? A. Yes, sir.

(Testimony of Philip R. Brown.)

Q. Did you have any other type of certificate or license entitling you to fly that airplane?

A. No, sir.

Q. Did you pay Mr. Phipps for the use of that airplane on that day? A. No, sir.

Q. Did you agree to pay him for the use of that airplane personally? A. No, sir.

Q. Had you at any time paid for the use of any airplane that you flew, while you were attending Mr. Phipps' institution? [14]

A. I rented airplanes from him, yes.

Q. You did on occasion rent airplanes from Mr. Phipps? A. Yes.

Q. How would you accomplish that? How did you do it?

A. Well, I would just go to the chief pilot in charge and take the airplane up for a certain number of hours, and then, when I returned it, pay him for the time.

Q. But on this particular day, December 5, 1948, you obtained the use of the airplane because of your rights as a GI trainee, is that right?

A. Yes, sir.

Q. What kind of an airplane was it?

A. Stinson 165.

Q. Cabin airplane? A. Yes, sir.

Q. Single-engine? A. Yes.

Q. Land airplane? A. Yes.

Q. Four-passenger ship? A. Yes, sir.

Q. Powered with what engine?

A. 165-horsepower engine.

(Testimony of Philip R. Brown.)

Q. Were you at that time building up time toward acquiring a commercial pilot's license? [15]

A. Yes, sir.

Q. You haven't paid any part or portion of this judgment that——

Mr. McGee: That is so stipulated.

Mr. Gallagher: So stipulated.

Q. (By Mr. Gallagher): When you got your private pilot's certificate did the government agency pick up the student's permit that you therefore had? A. Yes, sir.

Q. Then you went on and later got a commercial pilot's certificate? A. Yes, sir.

Q. The Government picked up your private pilot's certificate and rating?

A. That is right.

Mr. Gallagher: Take the witness.

Cross-Examination

By Mr. McGee:

Q. Mr. Brown, at the time of this accident you had been attending Mr. Phipps' flying school for about how long?

A. Oh, around four months, roughly; I don't remember.

Q. You had been taking training there with reference to obtaining your commercial pilot's license for about how long before this accident happened?

A. How long? [16]

Q. Yes.

A. About the same length of time.

(Testimony of Philip R. Brown.)

Q. Do you recall about how many more hours you had to do in order to obtain—strike that.

Do you recall how many more hours you had to do before you would be permitted to take the examination for the commercial pilot's license?

A. Well, I think it was about 20 hours, 20 or 25.

Q. Did you continue attending Mr. Phipps' school after this accident happened?

A. Yes, sir.

Q. During the time that you continued attending the school, after the accident happened, you were in training for obtaining your commercial pilot's license?

A. That is right.

Q. When did you finally obtain it?

A. I don't know. It is in my log book.

Q. Do you have your log book with you?

A. Yes, it is over there (indicating).

The Court: You may step down and get it.

The Witness: Yes, sir.

Q. (By Mr. McGee): You have your log book in your hands, do you, Mr. Brown?

A. Yes, sir.

Q. That has been kept by you, has it, in the course of [17] your experience as a pilot?

A. Part of it. The solo time I fill in myself, and the dual the instructor fills in.

Q. Does that refresh your recollection as to when you obtained your commercial pilot's license?

Maybe it would refresh your recollection if I suggested to you it was in May of 1949.

A. I believe it was 6-4-49.

(Testimony of Philip R. Brown.)

Q. Beg pardon?

A. Sixth month, fourth day, and '49.

Q. That was in June of 1949. When you said you had 20 more hours at the time of the accident, you had 20 more hours to do before you could take your examination for a commercial pilot's license, you meant 20 more hours of flight time, didn't you?

A. Yes, sir.

Q. In addition to the flight time you had to do yet, you also had to complete various courses in the theory of aviation, did you not?

A. Yes, sir.

Q. On the day of the accident were you told by one of the instructors in the school what to do on the flight that you were accomplishing at that time, at the time of the accident?

A. Yes, sir. [18]

Q. Had he instructed you what maneuvers you were to go through in the plane on that flight?

A. That is right, yes, sir.

Q. Did he designate the area within which your flight was to be accomplished?

A. Yes, sir.

Q. Did he designate the length of time that the flight was to consume?

A. Well, roughly—it wasn't—

Q. What particular air maneuvers were you making at the time the accident happened?

A. 180-degree turn.

Q. Had the instructor told you before you went up on that flight that you were to do sequence turns?

A. Yes, sir.

(Testimony of Philip R. Brown.)

Q. Was this 180-degree turn a part of sequence turns? A. Yes, sir.

Q. The flying that you were doing at the time of this accident was in preparation for your examination for a commercial pilot's license?

A. Yes, sir.

Q. Did you do anything on this flight which you were accomplishing at the time of the accident? Did you do any flying except such flying as you had been told to do by the instructor in the [19] school? A. No, sir.

Q. During your course of training at Mr. Phipps' school, looking toward your commercial pilot's license, did you do a series of landings from specified altitudes? A. Yes, sir.

Q. Did you do spirals? A. Yes, sir.

Q. From specified altitudes and in specified manners? A. Yes, sir.

Q. Did you do pylon figure 8's in a specified manner and at specified heights? A. Yes, sir.

Q. Did you do two-turn spins under the directions of the instructor? A. Yes, sir.

Q. Did you do straight climbs?

A. Yes, sir.

Q. Did you do slips? A. Yes, sir.

Q. Did you do maneuvers at minimum controllable speeds? A. Yes, sir.

Q. Did you do emergency maneuvers, such as simulated forced landings? A. Yes, sir.

Q. Did you do recovery from stalls entered from both [20] level and steeply banked altitudes?

(Testimony of Philip R. Brown.)

A. Yes, sir.

Q. During this course of training for your commercial pilot's license, did you also take glider flights?

A. No, sir.

Q. Mr. Gallagher has referred to a student pilot's certificate or permit. You obtained that, did you not, sir, before you obtained your private pilot's license?

A. Yes, sir.

Q. You obtained your student pilot's certificate or permit before you had taken any actual training toward a private pilot's license, did you not?

A. I had ground school first.

Q. You had ground school work?

A. Before I did any flying, why, we had——

Q. Before you did any flying you got the student pilot's certificate, is that right?

A. Yes, sir.

Q. And you got that before you did any flying but after you had had ground school work?

A. Yes.

Q. That was issued to you after you had taken a certain physical examination, isn't that right?

A. Yes, sir.

Q. During your course of training for the commercial [21] pilot's license you took cross-country runs, did you not?

A. Yes, sir.

Q. Now, some of the hours you put in in flight, while you were training for your commercial pilot's license, were solo and some were dual?

A. That is right.

(Testimony of Philip R. Brown.)

Q. Of course, by "solo" we mean flying when no one was with you. A. Yes, sir.

Q. And by "dual" we mean flying when there was an instructor physically in the plane.

A. That is right.

Q. But in all the flying you did you were told what you should do and how to do it by an instructor in the school? A. Yes, sir.

Q. Now, during your course of training for the commercial pilot's certificate you, yourself, would sign certain reports that Mr. Phipps would make up or have made up to be sent to the Government, wouldn't you? A. Yes, sir.

Q. Some of those reports pertained to the number of flight hours you had had and the type of plane you had used? A. That is right.

Q. You didn't yourself have anything to do with preparing any charges that Mr. Phipps might make for the use of a [22] plane by you, did you?

A. No, sir.

Q. But you would sign reports made by him as to the number of hours you had flown in a certain type of plane? A. Yes, sir.

Mr. McGee: No further questions.

The Court: Were you doing anything in particular at the time this accident occurred, any special type of maneuvering, or anything?

The Witness: I was doing a series of turns.

The Court: A series of turns?

The Witness: Yes, sir.

(Testimony of Philip R. Brown.)

Mr. McGee: I didn't catch that answer. May I have it repeated?

The Court: He said he was doing a series of turns.

Do you have any redirect examination, Mr. Gallagher?

Mr. Gallagher: Yes, your Honor.

Redirect Examination

By Mr. Gallagher:

Q. Mr. Brown, just before the accident happened did you say you were engaged in a 180-degree turn? A. Yes, sir.

Q. When you started that turn were you traveling generally toward the east?

A. Well—— [23]

Mr. Gallagher: I will withdraw the question.

Q. (By Mr. Gallagher): Mr. Brown, were you doing anything that day that you hadn't learned how to do before you got your private pilot's license? A. No, sir.

Q. Were you alone in the airplane?

A. Yes, sir.

Q. You said you had to build up how many more hours of time before you could take the flight test to qualify as a commercial pilot?

A. I think it was around 20, 25 hours; somewhere around in there.

Q. Was this flying you were doing on this par-

(Testimony of Philip R. Brown.)

ticular day, December 5, 1948, solo time which was credited to your total time? A. Yes, sir.

Q. This flying that you were doing on December 5, 1948, occurred in Los Angeles County, California? A. Yes, sir.

Q. I think I have asked you, but I want to make sure. Immediately before you got your private pilot's certificate had you learned how to do, and did you take a test demonstrating your ability to do all the flight maneuvers required by the Civil Aeronautics Authority for the issuance of a private pilot's license for single-engine land airplanes? [24]

A. Yes, sir.

Mr. Gallagher: That is all.

Mr. McGee: Your Honor, may I ask several more questions on cross-examination?

The Court: That is all right.

Recross-Examination

By Mr. McGee:

Q. Mr. Brown, you took off from what airport?

A. San Fernando Airport.

Q. About how far were you from the airport where you took off, at the time the accident happened? A. About seven or eight miles.

Q. During the course of training for a commercial pilot's license did you operate any dual-motor planes? A. No, sir.

(Testimony of Philip R. Brown.)

Mr. McGee: That is all.

Mr. Gallagher: That is all.

The Court: Is there anything further from this witness?

Mr. Gallagher: No, your Honor.

The Court: Step down.

(Witness excused.)

The Court: We will take a short recess.

(Short recess taken.)

The Court: Call your next witness.

Mr. Gallagher: If your Honor please, in order to [25] clarify something that my associate thinks might not be clear, Mr. McGee and I are willing to stipulate that the particular airplane being used by Mr. Brown on the day of the accident was an airplane referred to and covered by the Schedule A attached to the policy.

Mr. McGee: There is no question about that. That is stipulated. It is not a stipulation as to any coverage pertaining to Mr. Brown.

Mr. Gallagher: No.

The Court: Merely as to the instrumentality?

Mr. McGee: Instrumentality, yes, sir.

DWIGHT F. PETERSEN

called as a witness by and on behalf of the plaintiffs, being first duly sworn, was examined and testified as follows:

The Clerk: What is your name, please?

The Witness: Dwight F. Petersen.

(Testimony of Dwight F. Petersen.)

Direct Examination

By Mr. Gallagher:

Q. Mr. Petersen, where do you live?

A. Los Angeles, California.

Q. What is your occupation?

A. Flight operations inspector, Civil Aeronautics Administration.

Q. That is an agency of the Federal Government?

A. Yes, sir. [26]

Q. Does that agency have to do with issuing licenses or certificates to pilots?

A. Yes, sir.

Mr. McGee: Mr. Gallagher, if the purpose of this is to introduce into evidence any pertinent C.A.A. regulations, I will stipulate the proper foundation has been laid.

Mr. Gallagher: I merely wanted to introduce the form which was in use during the time Mr. Brown was the holder of a student pilot's certificate, of that particular type of certificate, so his Honor will be able to look at it.

The Court: All right.

Q. (By Mr. Gallagher): Do you have in your possession the form that was used by the Civil Aeronautics Administration with reference to student pilot certificates from May of 1947 up to and through June of 1948?

A. Yes, I do.

Mr. Gallagher: May I step up and get it, your Honor?

The Court: Yes.

Q. (By Mr. Gallagher): Mr. Petersen, is it

(Testimony of Dwight F. Petersen.)

usually indicated on a student pilot's certificate that—I withdraw that.

Is there any limitation with reference to the type of aircraft which may be used by the student pilot in obtaining his original instruction? By that I mean, is there any limitation when a person starts out? Could you, if you wanted to, [27] take instructions in a four-engine airplane so long as you were under the control of a qualified and certificated instructor? A. That is correct.

Q. The limitations with reference to the type of aircraft and the number of engines come into play when you get your first airman's certificate with your ratings, is that correct?

A. Not exactly. Limitations, so far as the student is concerned, might be imposed by the instructor when he permitted the student to solo.

Mr. McGee: May I ask that be repeated? I couldn't hear it.

The Court: Raise your voice.

The Witness: Not exactly, because a student pilot would be authorized to solo specific types of aircraft, according to what the instructor deemed him competent in. That is provided for by endorsement on the reverse side of the certificate.

The Court: You may impose additional limitations than what appear on the application?

The Witness: Yes. That is determined on what the instructor finds the student competent to do.

Q. (By Mr. Gallagher): That has reference to

(Testimony of Dwight F. Petersen.)

what a person may do under a student pilot's certificate? [28] A. That is correct.

Mr. Gallagher: I would like to offer this form in evidence, your Honor, as Plaintiffs' Exhibit No. 1.

The Court: It may be received.

The Clerk: Plaintiffs' Exhibit No. 1 in evidence.

(The document referred to was marked Plaintiffs' Exhibit No. 1 and received in evidence.)

Q. (By Mr. Gallagher): Do you know the part of the Civil Air Regulations which, in 1948, pertained in various pilot ratings?

Mr. Gallagher: I will withdraw that.

Q. (By Mr. Gallagher): On December 5, 1948, what parts of the Civil Air Regulations referred to student pilot's, private pilot's, and commercial pilot's certificates?

A. Part 20 of the Civil Air Regulations pertains to the requirements for issuance or obtaining the student pilot, private pilot, and commercial pilot ratings. Part 43 pertains to general operation rules, which include privileges and limitations of those certificates.

Q. In other words, Part 43 contains the federal regulations on limitations applicable to the holder of a particular type of pilot's certificate or rating?

A. Student, private, and commercial.

Mr. Gallagher: That is all. [29]

(Testimony of Dwight F. Petersen.)

Cross-Examination

By Mr. McGee:

Q. Mr. Petersen, would the holder of a private pilot's license be limited to a certain type of airplane, let us say a single-engine airplane?

A. Yes, sir, if that is the type of aircraft in which the examination was obtained and he had no further examination.

Mr. McGee: That is all.

The Court: Let me ask you this: That student's permit is issued to whom?

The Witness: To the applicant or the student pilot who applies for it.

The Court: Now, when a person has one type of license, such as, for instance, a license for one type of aircraft, and desires to pursue further studies that will give him a broader field of knowledge, is he given a license of this type?

The Witness: Upon acquiring a rating covering the other type of aircraft or the other category, you might say, he would take an examination in that category and the rating would be applied to the same certificate be held.

The Court: What was the technical name of the license Mr. Brown had?

Mr. Gallagher: He had an airman's certificate and a [30] private pilot's rating, single-engine land airplane.

The Court: And he was seeking a commercial license?

(Testimony of Dwight F. Petersen.)

Mr. Gallagher: Yes, he wanted a commercial pilot's rating.

The Court: All right. Now, would a person in that position, seeking instructions, need a student's certificate?

The Witness: No, sir. He might be a person with a private pilot's certificate seeking a commercial rating, which is a higher rating than private pilot.

The Court: In other words, the type of certificate that he has would allow him, without anything further, to pursue all the experimentation and study with his own or any other plane that he might hire in order to perfect himself, is not that true?

The Witness: That is correct.

The Court: As in maritime law, it is as though an ablebodied seaman wanted a higher rating, and he would have to pass an examination. Are you familiar at all with that?

The Witness: No, I am not.

The Court: Then that does not do me any good. It is argumentative, anyway.

These student permits, which allow the student and allow any person that owns an airplane to be given instructions, and allows him to use an airplane for that purpose, it is limited to a person who has no form of certificate at all, is [31] that true?

The Witness: I think you mean——

(Testimony of Dwight F. Petersen.)

Mr. Gallagher: Speak a little louder, if possible.

The Witness: I think you mean a man must have a certificate in order to operate aircraft. A student's certificate in that sense would apply to a novice, a person who had not previously held a certificate.

The Court: That is the point I wanted to bring out.

Mr. Gallagher: Would your Honor permit me to have that answer read, the part where the witness mentioned a novice?

The Court: Yes.

(The witness' answer was read.)

Redirect Examination

By Mr. Gallagher:

Q. When the novice who holds a student's certificate, student pilot's certificate, attains a sufficient degree of proficiency to pass the flight examination and is issued a private pilot's certificate and rating, does the Government pick up the student's permit?

A. Yes, sir, we do. A pilot cannot hold two pilot's certificates.

Mr. Gallagher: Thank you, Mr. Petersen.

Recross-Examination

By Mr. McGee:

Q. Your answer to one of Mr. Gallagher's ques-

(Testimony of Dwight F. Petersen.)

tions, I [32] believe, was that a pilot may not hold two certificates at the same time.

A. May not hold two pilot's certificates. He may hold many pilot ratings, but not two airman's certificates of pilot classifications.

Q. The term "airman's certificate" has been referred to. Mr. Petersen, just what is an airman's certificate?

A. An airman's certificate would be a certificate issued to a qualified individual for various types of airman ratings, which would include mechanics, dispatchers, control tower operators, parachute riggers, or technicians, and pilots, also. We classify all those certificates in the general term "airman certificates."

Q. Is there such a thing as a separate airman's certificate, that is, is there an airman's certificate that is separate and apart from a pilot's certificate?

A. Yes, sir. A mechanic's certificate would be an airman's certificate.

Q. Well, now, a person who has a private pilot's license, does he also have an airman's certificate?

A. A person cannot hold a private pilot's license in the sense of a license. We issue a certificate which states on it, "Airman's Certificate." The rating is private pilot. "Private pilot" is the rating, private pilot rating.

Q. Where does the airman's certificate come in with [33] respect to one who has a private pilot's rating?

(Testimony of Dwight F. Petersen.)

A. The certificate itself is an airman's certificate. The pilot rating is private pilot.

Q. How about a student, one who has the rating of a student pilot, does the airman's certificate relate to him, also?

A. The student pilot certificate is also an airman's certificate.

Mr. McGee: Thank you.

Mr. Gallagher: That is all.

The Court: Step down.

(Witness excused.)

The Court: Ordinarily, I do not look at the clock, but this is the first day of the trial, and I am more generous on the first day. We have ample time so I will not need to crowd you. I will surprise you by adjourning on time.

Mr. Gallagher: May I ask your Honor to remain in session for just one minute? The Veterans Administration is here, and they have the contract, and they want to go away.

The Court: We will charge that time up to you, then.

Mr. Gallagher: Yes, you may charge it up to me.

The Court: Any representative of any administrative body we will hear and let go.

Mr. Gallagher: Mr. Pellerin, please. [34]

MAXWELL G. PELLERIN

called as a witness by and on behalf of the plaintiffs, being first duly sworn, was examined and testified as follows:

The Clerk: What is your name, please?

The Witness: Maxwell G. Pellerin.

Direct Examination

By Mr. Gallagher:

Q. What is your residence?

A. 3261 California Street, Huntington Park.

Q. What is your occupation?

A. Contract officer.

Q. With the Veterans Administration?

A. With the Veterans Administration.

Q. Do you have the contract which was in existence between Mr. Phipps and the Veterans Administration in the year 1948, and particularly on December 5, 1948? A. Yes.

Q. Will you produce it, please?

A. Yes. That covers the period July 1, 1948, to June 30, 1949.

Q. Is this entire document that particular contract (indicating)? A. No.

Q. How much of it is the contract?

A. This portion. This is the portion of the contract [35] (indicating).

Q. This is the contract in effect between July 1, 1948, and June 30, 1949?

A. Yes, sir, that is correct.

Q. With Phipps Flying Service out in San Fer-

(Testimony of Maxwell G. Pellerin.)

nando? A. Yes, sir.

Mr. Gallagher: Will you stipulate that it is the Mr. Phipps that we have referred to?

Mr. McGee: Oh, yes.

Mr. Gallagher: I will offer this contract in evidence, your Honor.

The Court: We cannot take it away from him. You should have had them prepare a photostatic copy. We can have him leave it and then you can supply a photostat, unless you have a copy of it.

Mr. McGee: I think we can solve the difficulty this way: I understand that this contract is precisely the same as the contract that was in effect for the previous year, a copy of which I have.

The Court: Well, if you can stipulate to that.

Mr. McGee: Can we stipulate to that?

The Court: I do not like to take the Veterans Administration papers away from them.

Mr. Gallagher: That is right, your Honor.

Q. (By Mr. Gallagher): Is it your understanding that [36] the contract in effect between July 1, 1948, and June 30, 1949, was the same in all respects as the contract in effect from July 1, 1947, to June 30, 1948, between the Veterans Administration and the Phipps Flying Service?

A. I cannot testify to it being exactly; essentially it is.

Q. Essentially the same? A. Yes.

The Court: You enter into these contracts with these schools every year?

The Witness: That is right.

The Court: Unless there is some special——

(Testimony of Maxwell G. Pellerin.)

The Witness: Minor changes.

The Court: —situation that arises, the conditions are the same?

The Witness: Yes.

The Court: Or the character of the school changes.

The Witness: Yes.

Mr. Gallagher: We will accept that.

The Court: We can receive that subject to any modification you may make, should you discover any change before the case is concluded.

Mr. Gallagher: Very well, your Honor.

Mr. McGee: Since Mr. Phipps still has some use for that, I understand, may it be stipulated that it may be withdrawn [37] upon the substitution of a proper copy?

The Court: A photostatic copy.

Mr. McGee: Photostatic copy.

Mr. Gallagher: So stipulated.

We will offer that as Plaintiffs' Exhibit No. 2.

The Court: It may be received.

The Clerk: Plaintiffs' Exhibit No. 2 in evidence.

(The document referred to was marked Plaintiffs' Exhibit No. 2 and received in evidence.)

The Court: Is there anything further from this witness?

Mr. Gallagher: Nothing, your Honor.

The Court: Mr. McGee?

(Testimony of Maxwell G. Pellerin.)

Mr. McGee: No, sir.

The Court: All right, sir. Step down.

(Witness excused.)

The Court: We will take our regular adjournment to 2:00 o'clock.

(Whereupon, at 12:00 o'clock noon, an adjournment was taken until 2:00 p.m. of the same day.) [38]

Tuesday, December 5, 1950—2:15 P.M.

Mr. Gallagher: Mr. Stephenson.

GLENDON E. STEPHENSON

called as a witness by and on behalf of the plaintiffs, being first duly sworn, was examined and testified as follows:

The Clerk: Please state your name.

The Witness: Glendon E. Stephenson.

Direct Examination

By Mr. Gallagher:

Q. Mr. Stephenson, where do you reside?

A. 12420 Milbank Street, North Hollywood, California.

Q. What is your occupation?

A. Underwriter.

Q. For The Ohio Casualty Insurance Company?

A. That is correct.

Mr. Gallagher: Mr. McGee, instead of showing the witness the copy of the policy which is attached to the answer, may I, with your permission, exhibit

(Testimony of Glendon E. Stephenson.)

a photostatic copy of the policy, just for a couple of questions to him?

Mr. McGee: Certainly.

Q. (By Mr. Gallagher): Mr. Stephenson, I will show you a duplicate or a photostatic copy of the portions of the policy attached to the answer of The Ohio Casualty Company in this litigation, and ask you whether that policy, insofar [39] as the printed form portion of the policy is concerned, is one that was in general use by The Ohio Casualty Insurance Company throughout the United States at the time.

A. You mean for the aviation policy?

Q. Yes.

A. I could not answer that because I have never underwritten an aviation policy in my life.

Q. Then you don't know anything about it, do you?

A. Nothing.

Mr. Gallagher: I want to tell your Honor I haven't had a chance to talk to this man. I had him subpoenaed as an underwriter. I thought he would know the answer to that question. It isn't too important.

That is all.

The Court: All right.

(Witness excused.)

Mr. Gallagher: If your Honor please, you said something this morning that has disturbed me somewhat over the noon hour.

The Court: Are not you used to me now? I

told you never to take a vested interest in anything I say.

Mr. Gallagher: That is right, your Honor.

The Court: Remember that many times I talk one way and decide a case another way.

Mr. Gallagher: I am not disturbed by anything your [40] Honor said with reference to tentative views, with reference to the issues.

The Court: What is disturbing you?

Mr. Gallagher: It was your Honor's reference to the Federal Register. I, frankly, have not attempted to correlate the provisions and sections in the Code of Federal Regulations with the Federal Register itself, because in 44 U. S. Code Annotated, Sections 307 and 311 (c), as I read those sections, the court takes judicial notice, not only of the Federal Register, but the Code of Federal Regulations as published by the Director of Archives——

The Court: We have them here. I meant to include both. I merely am saying, if there are regulations which have the force of law but which are not published, then you have to give me a copy. I have the complete list. There are 50 volumes of old ones.

Mr. Gallagher: That was all I wanted to clear up.

The Court: We have them all.

Mr. Gallagher: Thank you.

The Court: All I want to do is point to the fact that regulations of a type that have not yet appeared or of a type that they can make without publication, I have to have copies of.

Mr. Gallagher: Yes, your Honor.

The Court: We have the complete [41] regulations.

Mr. Gallagher: I would like to ask Mr. Brown one further question which I think was omitted, if your Honor will permit me to do it.

The Court: Yes.

Mr. Gallagher: Come forward, Mr. Brown.

PHILIP R. BROWN

recalled as a witness by and on behalf of the plaintiffs, having been previously duly sworn, was examined and testified further as follows:

Direct Examination

By Mr. Gallagher:

Q. Mr. Brown, as of December 5, 1948, approximately how many solo hours had you logged in single-engine aircraft? A. Around a hundred.

Q. What did you say?

A. Around a hundred.

Q. Around a hundred? A. Yes.

Q. That 100 hours of logged time was after you had been certificated and qualified as a private pilot, is that correct?

A. No, that includes——

Q. The hundred hours? A. Yes, sir.

Q. Well, have you your log book? [42]

A. Yes, sir.

Q. Will you take a look at your log book and

(Testimony of Philip R. Brown.)

tell us how many solo hours you had on December 5, 1948?

A. Well, you see, I have two log books. One is—you want the total time?

Q. Yes, the total time.

Mr. Gallagher: I will withdraw that question.

Q. (By Mr. Gallagher): Do you have a log book of your time only as a private pilot after you obtained your certificate, up to that time?

A. No. I have a log book with only the time in certified school. And the other log book I have is my total time that I do flying on my own, outside the school, or any flying at all.

Q. Well, do you have any log book that shows all of your total solo hours up to December 5, 1948?

A. Well, I can figure it out. Just a minute. 92 hours solo.

Q. Does the 92 hours of solo time include your time in airplanes that you personally rented?

A. Yes, sir.

Q. That is, up to December 5, 1948?

A. Yes, sir.

Mr. Gallagher: That is all.

Mr. McGee: No objections. [43]

The Court: Step down.

(Witness excused.)

Mr. Gallagher: Mr. Phipps.

HARRY D. PHIPPS

called as a witness by and on behalf of the plaintiffs, being first duly sworn, was examined and testified as follows:

The Clerk: What is your name, please?

The Witness: Harry D. Phipps.

Direct Examination

By Mr. Gallagher:

Q. Mr. Phipps, I hand you Plaintiffs' Exhibit No. 2, which is a contract between the Veterans Administration and Phipps Flying Service effective between July 1, 1947, and June 30, 1948, and attached to that are a group of typewritten and mimeographed pages.

Is it true that for the period from July 1, 1948, to the period ending June 30, 1949, you had exactly the same type of contract with the same provisions in it, excepting for the changes of dates, and that the contract in effect on December 5, 1948, included the same addenda which are attached to this particular contract? A. That is true.

Q. So all you got for the 1948 period was a new basic contract containing the same memoranda or conditions attached to it? [44]

A. That is correct.

Q. Thank you. You furnished the particular airplane which was being piloted by Mr. Brown on December 5, 1948, to him, pursuant to the provisions of that contract with the Government, is that true? A. I did.

(Testimony of Harry D. Phipps.)

Mr. Gallagher: That is all.

The Court: Do you have any cross-examination, Mr. McGee?

Mr. McGee: Your Honor, I am afraid this might be going outside the scope——

The Court: Let us not do it. I believe in the rules of evidence.

Mr. McGee: I will reserve it.

The Court: He was merely asked about any changes in the contract. You can put him on as part of your case later on.

Step down.

(Witness excused.)

Mr. Gallagher: The plaintiffs rest.

Mr. McGee: Mr. Phipps, will you take the stand again, please?

HARRY D. PHIPPS

recalled as a witness by and on behalf of the defendant, and having been previously duly sworn, was examined and testified as follows: [45]

Direct Examination

By Mr. McGee:

Q. Mr. Phipps, at the time of the accident involved in this case, Philip R. Brown was engaged in a course of instruction at your flying school, was he not? A. That is correct.

(Testimony of Harry D. Phipps.)

Q. He was taking that course of instruction pursuant to the GI Bill of Rights?

A. That is right.

Q. Were the courses of instruction given in your school at that time, including the one which was being taken by Philip Brown, under the direction of instructors? A. That is correct.

Q. Were all of the flights taken by the students, whether it was a student for a private pilot's license or a student for a commercial license, under the supervision of instructors in your school?

A. They were.

Q. Before a student—and I am speaking about a student such as Philip Ray Brown—undertook any particular flight, was he told by an instructor in your school what he should do on that flight and the area in which the flight should be taken?

Mr. Gallagher: That is objected to, your Honor, upon the ground it calls for a conclusion of the witness. [46]

The Court: I think it is rather leading.

Mr. Gallagher: I don't mind that.

The Court: Mr. McGee, I think the court should be given the facts on which to determine the amount of direction the student had, rather than asking leading questions that can be answered by conclusions.

Q. (By Mr. McGee): Mr. Phipps, will you describe the procedure that was followed in your school with respect to a student such as Philip Ray Brown, as to the instruction given him, the

(Testimony of Harry D. Phipps.)

supervision, if any, exercised over him, in connection with flights that he would take in connection with his course of training?

A. At the start the students would be assigned to a definite instructor. The instructor had his curriculum to follow in which he would state to students what he had to work on.

At each flight the student was directed by that particular instructor as to what to work on and where to work, and, as a rule, how long he should stay on it.

Q. Did those instructors that you have referred to have a pilot instructor's rating, issued by the C.A.A.? A. They did.

Q. Will you describe to the court, Mr. Phipps, the basis upon which you were paid by the Government for the use of airplanes by students, in connection with the flights or [47] flight training?

Mr. Gallagher: That is objected to, your Honor, upon the ground the contract would be the best evidence, and only evidence of that. There couldn't have been an oral agreement with the Veterans Administration. It would have to be in writing.

Mr. McGee: If the court would refer to page No. 2—I have the contract. I should hand it up to your Honor. I believe that it may appear that some explanatory words are necessary.

The Court: Paragraph C, "Cost of Instruction," is that it?

Mr. McGee: Yes, sir. And then there are paragraphs relating to dual hours of flight and solo

(Testimony of Harry D. Phipps.)

hours, and type of—May I state what I propose to show?

The Court: Go ahead.

Mr. McGee: This is what I propose to show by this line of questioning, your Honor: that is, that he was paid upon an hourly basis by the Government for the use of planes by the students in connection with the course of training. And that the amount that was paid varied according to the type of plane that was being used.

The Court: Unless there is some ambiguity here, the explanation would be a modification. We take judicial notice of the fact that for a dual flight a different plane would be [48] available than for a solo flight.

Mr. McGee: I don't think it is altogether clear from the contract.

The Court: If you mean to say what kind of plane was used in one or the other, I think that would be permissible, but not to try to apportion the money. Any attempt to apportion the money would not be a modification of this instrument.

Mr. McGee: Of course, your Honor, the instrument is here as a collateral matter.

The Court: I know what you are trying to do. You are trying to bring yourself within the theory this was a hiring.

Mr. McGee: That is right.

The Court: I am willing to let you get in all the facts that are permissible, before I decide it is a hiring. I am not very much impressed by the

(Testimony of Harry D. Phipps.)

argument. I do not think you can turn an agreement for instructions, using a plane, into a contract for hire, any more than you could turn a contract by these driving schools into one of hiring an automobile. I have taken one of those driving courses. It is so much per hour. That is a matter to be argued later on, though.

All I am saying is that you may ask a question as to which plane was used on a dual flight, what type of plane, and what type of plane was used on a solo flight. To that extent I will allow you to explain it. But not to show any apportionment of the money. [49]

Mr. McGee: This is what I had in mind—I don't want to transgress on the ruling of the court——

The Court: I am not making any ruling. I am telling you what I think you can explain.

This is a very explicit contract. It describes the hours and the conditions. It has all sorts of specifications. So for the present let us go on with that question, and then we will talk about others. This contract even describes the books and the maximum and minimum of the instructions for which they were paid, and the supplies.

Q. (By Mr. McGee:) In the course of training of students taking the course that Mr. Brown was taking, were different types of planes used?

A. They were.

Mr. McGee: Your Honor, this isn't what is clear to me: whether it appears from the contract that the amount that was paid to Mr. Phipps by the Govern-

(Testimony of Harry D. Phipps.)
ment varied according to the different types of planes that were used.

The Court: Mr. Phipps, tell us what was used on the solo flight. What type of plane did you use on a solo flight?

The Witness: We used a 65-horsepower ship, or they could use 155 or better. That was listed.

The Court: What about the dual?

The Witness: The same.

The Court: The same? [50]

The Witness: That is right.

Q. (By Mr. McGee): Then where did the difference in the planes come in?

A. Just in the quantity that we had. There might be some particular ship that some instructor wanted to use particularly because it might have been, the engine might have been a little better, in a little better condition, so he could get a little better performance.

There was no particular distinction between the aircraft in any of my schools, as to which, as to whether they should be used for dual or solo.

Q. Did the charges made by the Government vary according to the type of craft that was used?

Mr. Gallagher: Just a moment. I don't think you meant that. "Charges made by the Government"?

Q. (By Mr. McGee): By you to the Government. Did the charges vary according to the type of plane used?

A. That was broken into this classification: We had, for 65-horsepower aircraft we had one charge

(Testimony of Harry D. Phipps.)

for solo flight time. We had another charge for dual flight time.

Then in the horsepower range such as the Stinson Mr. Brown was involved in, that was another price. It was broken down into dual or solo.

The Court: In other words, you would call it dual or solo depending upon the type of plane used? [51]

The Witness: No, whether or not an instructor was with the student. By "solo" he would be alone in the airplane.

The Court: Yes, I know. But I do not get the purport of your last answer.

The Witness: On the dual flight——

The Court: This contract says that dual flight is \$10.86 per hour and solo is \$7.86 per hour, and then gives a total, or maximum. How did the type of plane enter into either of these classifications, as to the price set forth in the contract?

The Witness: There are two types of planes used. One is larger than the other, and therefore we got more money for that particular aircraft. It was more expensive and cost more to operate.

The Court: How would you bring it under this schedule?

The Witness: The Civil Aeronautics Authority stipulates how many hours in each type of aircraft a student must have in order to qualify for a particular license, and we were staying within their limitations, when that contract was written. So many hours had to be flown in aircraft of certain

(Testimony of Harry D. Phipps.)

horsepower, and so many more in aircraft of heavier horsepower.

The Court: Heavier?

The Witness: And we got more money.

The Court: You charged for dual instead of solo? [52]

The Witness: No.

The Court: I still do not get that.

Mr. Gallagher: May I explain that to your Honor?

The Court: Explain it in simple language.

Mr. Gallagher: Assume, your Honor, you want to take flying lessons and I am an instructor, and you come to me and you and I get into an airplane together. We go up, the two of us, in the airplane. I show you how to manipulate the rudder and the stick. That is called dual, when the instructor and student are together in the airplane. It doesn't make any difference what kind of an airplane it is.

On solo, you are all alone, by yourself.

The Court: I understand that.

The Witness: That would be the difference in the rate.

The Court: What I am trying to find out is, how does the size of the plane affect this rate here, which is based solely upon whether it is single or dual?

Mr. Gallagher: There may be other provisions there where the rate for dual on a 65-horsepower airplane, and solo on such airplane——

(Testimony of Harry D. Phipps.)

Mr. McGee: May I ask these questions? I think they may shed some light on this.

The Court: Go ahead.

Q. (By Mr. McGee): In taking solo flights, would a student taking the kind of course Mr. Brown was use different [53] types of planes or planes of different horsepower? A. He would.

Q. You would make varying charges to the Government, depending upon what the horsepower of the plane was that was being used by the students on the solo flights? A. Yes, sir.

Q. Is that correct, sir? A. That is correct.

Q. In the taking of dual flights, which is when, as I understand it, not only the student is present but a flight instructor also, and in the taking of those flights sometimes a plane of a certain horsepower would be used and sometimes a plane of a different horsepower? A. That is correct.

Q. You would bill the Government, and you would make different charges to the Government, depending upon which type of plane was used—I mean, what the horsepower of the plane was?

A. That is correct.

Q. Now, was the Government billed by you for the flight which Mr. Brown was taking at the time of his accident?

Mr. Gallagher: That is objected to, if your Honor please. If counsel intends to intimate the Government was billed for each separate time an airplane was taken out, and counsel wants to ask the witness if at the end of the month [54] they

(Testimony of Harry D. Phipps.)

sent the Government a statement showing the number of hours all the airplanes were used and their total charges, I would have no objection to it.

The Court: I will overrule the objection. I presume each flight was taken into consideration and it was taken in as part of the monthly billing.

Mr. McGee: Perhaps I can make it simpler by asking this question:

Q. (By Mr. McGee): Did Mr. Brown make any flights while he was attending your school for which you didn't bill the Government?

A. He did.

Q. By that do you mean flights he took when he himself rented and paid for the plane?

A. That is correct.

The Court: The particular flight in which this unfortunate accident occurred was a flight for which the Government was billed, for that month?

The Witness: That is correct.

The Court: Is that what you wanted, Mr. McGee?

Mr. McGee: Yes, sir.

Q. (By Mr. McGee): You billed the Government for the course Mr. Brown took, in accordance with the contract which has been introduced in evidence here?

A. We did. [55]

Q. The course of training which Mr. Brown was taking was divided substantially into two parts, that is, the ground instruction and the flight instruction?

A. They had to be given simultaneously.

Q. Will you explain what you mean by that?

(Testimony of Harry D. Phipps.)

A. Well, a student could not take just the flight portion of that training. He had to have the ground instructions as well as the flight instructions, in order to qualify for the license and in order for us to qualify to bill for that particular student.

Q. You billed the Government for the instruction which Mr. Brown had, both ground instruction and flight instruction, in accordance with the contract that has been introduced here? A. We did.

Q. Now, did the ground instruction involve the use of an airplane? Let me get at it this way: By "flight instruction" you mean instruction in the actual flying of a plane aloft, is that right?

A. That is correct.

Q. By "ground instruction" you mean instructing the students in the fundamentals of aviation?

A. That is right. Such as navigation, meteorology, general service of aircraft, a little bit of radio.

Q. That is what is meant by "ground instruction"? A. That is correct. [56]

Mr. McGee: I have no further questions.

Cross-Examination

By Mr. Gallagher:

Q. Mr. Phipps, in your operations out there you rented airplanes to private pilots and commercial pilots on many occasions, didn't you?

A. That is correct.

Q. If a man walked into your place and he exhibited to you a currently effective airman's cer-

(Testimony of Harry D. Phipps.)

tificate and a currently effective airman's rating record—the latter rating the individual as a private pilot of airplane, single-engine, land—and that individual should then want to rent and pilot one of your Stinson aircraft similar to the one Mr. Brown was flying on December 5, 1948, would you rent the aircraft to such pilot or such person, in the event he satisfied you that he could handle the airplane with reasonable safety?

A. We would. But that would have to be proven by a check-out, an actual flight check-out.

Q. In other words, if such a person came to you and wanted to rent an airplane, wanted to go up in it himself and pilot it himself, you would have one of your check pilots take a ride with him on a couple of take-offs and approaches and landings to see how he handled the airplane?

A. That is right.

Q. If you were satisfied that your property was safe [57] in his hands you would turn it over to him and he would then pilot this rented airplane, wouldn't he?

A. That is right.

Q. And such pilot would make his own personal arrangements to rent the airplane, wouldn't he?

A. That is correct.

Q. He would pay you for it?

A. That is right.

Q. Such pilot, who was also the renter, would be the only person in the airplane while it was in the air?

A. That is right.

Mr. Gallagher: That is all.

(Testimony of Harry D. Phipps.)

Mr. McGee: One or two more questions.

The Court: All right.

Redirect Examination

By Mr. McGee:

Q. Mr. Phipps, in billing the Government for courses, such as Mr. Brown was taking, would your billing show the number of hours that each student had flown a particular plane?

A. It would show the number of hours in a particular type of ship.

Q. Particular type of plane?

A. That is correct.

Q. Your billing would show the hourly records, the hourly record of the use of a particular type of plane by a [58] particular student?

A. It would.

Mr. McGee: I have no further questions.

Mr. Gallagher: No further questions, your Honor.

The Court: Step down.

(Witness excused.)

Mr. McGee: We rest, your Honor.

The Court: Do you have anything further, Mr. Gallagher? Do you have any rebuttal?

Mr. Gallagher: No, your Honor.

The Court: All right. I will hear any argument you want to present.

You have decided not to use the depositions?

Mr. Gallagher: Yes, your Honor. They are the depositions of Mr. Phipps and Mr. Brown.

The Court: That is all right. I just want to make sure.

Opening Argument on Behalf of the Plaintiffs

By Mr. Gallagher:

May it please your Honor, in this case the evidence, of course, is quite clear. The effect to be given that evidence is, of course, your Honor's sole province.

There are two issues in the case, as we agreed at the outset. One, was Mr. Philip Brown a student pilot? Two, was Mr. Philip Brown a renter pilot?

The Court: You can eliminate the second question. I [59] would rather hear what Mr. McGee has to say. You cannot segmentize a contract and split the amount of money that was being given for rental of the property from instructions. The contract does not speak of any specific sum for rental. The money is not divided in that manner.

The relationship is not that of a renter and an owner of an automobile, who rents at so much. The course of instructions covers ground instructions, and you could not split it, any more than you could, as I say, should I want to brush up on my driving, as I have not driven since an illness two or three years ago, and took the type of lessons I took years ago. I would hire a person, one of these driving instructors, and pay him so much per hour, which would include instructions and manipulating the automobile, watching my driving and

driving alongside me, or having me drive on a lot and watching me and ordering me to do certain particular things. But the sum I paid him would not be for the hiring of the automobile. I would pay him for the instructions, which included the use of the automobile.

I think the words in that contract contemplated a separate hiring which was dissociated entirely from an instruction setup. I would rather hear you on the other.

Mr. Gallagher: Very well. Taking up the problem No. 1, the policy provides that the "additional assured" clause shall not include any person who is a student pilot. [60]

Now, if we take a look at that contract of insurance we will notice that the insurance company itself recognizes and describes three separate and distinct types of pilots.

The Court: Where is the contract?

Mr. Gallagher: That is the one attached to the answer, the insurance contract. It is the photostat at the end of the answer.

The Court: Which page of it?

Mr. Gallagher: The first page, your Honor, at the bottom, where it says——

The Court: "Exclusions"?

Mr. Gallagher: No. May I show you? May I use your copy, Mr. McGee?

Mr. McGee: Yes.

Mr. Gallagher: Here is one that is separated. It is right down here, this part I am reading now, the first page (indicating).

The Court: All right.

Mr. Gallagher: Now, on this contract issued by the insurance company to Mr. Phipps, the insurance company says, "The aircraft will be operated only by the following pilots"—and then written in in typewriting is, "Any private or commercial certificated and qualified pilot also any student pilot while under the supervision of a commercial certificated pilot having a pilot instructor's rating issued by the [61] C.A.A."

There we have references to classifications which are clearly shown in the Civil Air Regulations. One, the private certificated and qualified pilot. Two, the commercial certificated and qualified pilot. Third, the student pilot.

Now, in Part 20 of the Civil Air Regulations, which are codified in Title 14 of the Code of Federal Regulations, we have first the reference to student pilot certificates. Your Honor will notice that under the requirements for the issuance of such certificate there is no aeronautical knowledge of any kind required.

Next we have the private pilot certificates with ratings. In other words, a private pilot may be rated as qualified to fly a single-engine land airplane, a multi-engine land airplane, a seaplane or a flying boat, or all of them. But a student is not licensed to fly any airplane and carry passengers in it, for instance, or to exceed certain territorial limitations which I will call your Honor's attention to a little bit later.

The private pilot rating requires certain aeronau-

tical knowledge, aeronautical experience, and aeronautical skill.

Mr. Brown, according to the evidence in this case, had all of those qualifications which are requisite in order to entitle him to fly that Stinson aircraft anywhere in the United States and to carry passengers, so long as he did not [62] carry them for hire.

Now, under the law, as I understand it—and when I say “the law” I am talking about the Civil Aeronautics Act and the Civil Air Regulations—Mr. Brown was not a student pilot within the meaning of the Civil Air Regulations.

When the insurance company itself selects the very same pilot classifications which are set forth in the Civil Air Regulations, it is quite obvious that the insurance company referred to exactly the same type of classifications. Therefore, I respectfully suggest to your Honor that Mr. Brown was not a student pilot. He was a certificated and qualified private pilot and was flying this airplane as such.

It is exactly the same as a lawyer who is licensed to practice law, but who wants to obtain a degree as a doctor of jurisprudence. He goes back to school and takes a postgraduate course. He is not a student lawyer any more. He is not a student attorney, proctor, and so forth, in the federal courts. He is an attorney at law who may be studying, the same as your Honor suggested this morning. I am not using your Honor’s example for the purpose of impressing the logic of the argument upon you,

but because it is one that I think fits the situation, that is, a physician who is duly licensed to practice medicine and who goes to school to further his education or to acquire further skill. He wouldn't be classified as a student physician and surgeon. He is [63] classified as a physician and surgeon.

In this case I respectfully submit to your Honor that Mr. Brown was not a student pilot. He was a private pilot. They recognize those distinctions themselves in their policy, and the policy says also, in the "additional insured" portion of it, "The term 'Insured' shall include not only the Named Insured but also any other person while riding in, or a pilot approved hereunder, while operating such aircraft, and any other person legally responsible, other than as pilot, for its operation, provided such operation is with the permission of the Named Insured, but shall not include: . . .

"(f) or any person who is a student or renter pilot."

The pilots who are approved in the typewritten portion of the first page, that I called your Honor's attention to, are "Any private or commercial certificated and qualified pilot . . ."

I respectfully submit for the plaintiffs.

The Court: All right.

Opening Argument on Behalf of the Defendant
By Mr. McGee:

Your Honor, to which phase of the issues do you desire I first direct my argument, sir?

The Court: It doesn't make any difference. You are free. I merely told Mr. Gallagher I was not im-

pressed very much by the second point. I will give you the opening on that. [64]

Mr. McGee: I will take the opening on that.

The Court: I am not limiting you gentlemen. You can take all the time you desire.

Mr. McGee: Our contention is that Mr. Brown, in operating the plane, was a bailee for hire, which, I am sure we have to recognize, means the same thing as renting. The words that are used in an insurance policy must be understood and must be taken in their plain and ordinary and proper sense.

The Court: That is correct. And most strongly against the company.

Mr. McGee: Most strongly against the insurer, that is correct.

The Court: I know what happened to me in the famous *Boulter v. Commercial Standard Insurance Company* case. That case is cited at 175 F. 2d 763. I tried to interpret the words of limitation as to the use of a trailer when commercially used in hauling merchandise.

The man in that case had taken his mother-in-law on a trip, and he said one reason he went back to San Francisco was to pay a premium on the policy, and while he was in San Francisco he thought of calling up a man and soliciting business, but he did not. I thought it was so farfetched that, even after the jury decided he was right, I set it aside. But the court held that every intendment is for coverage, and if he intended to use it toward that purpose, that that [65] was enough to cover it, despite the fact that the most valuable part of the

equipment, the six-wheel attachment, was left up in the north, and he was going back to San Francisco with just the chassis, on which he could carry almost nothing. He carried a few sacks.

I think when we start talking about these insurance policies we have to remember our higher courts say this language shall be interpreted most strongly against the insurer.

Mr. McGee: That is true, but the courts have also observed, as the California Supreme Court, in——

The Court: I am not bound by the California Supreme Court: That was my trouble in that case. I used every California case there was, and Judge Pope just disregarded them entirely. The cases that I use and refer chiefly to are federal cases.

I realize that an insurance contract is governed by state law, but, in interpreting this contract, we are in the domain of federal law, because we have to apply to it the nomenclature and the designations given by federal authorities to certain persons. That is why I am not bound by the interpretation of the state courts.

Mr. McGee: Your Honor, I mention the California case, as I was about to, as being one of the cases in line with the authorities throughout the country—federal decisions, as well as decisions of the state courts—the import of which [66] is that the words of an insurance policy should be used in their popular and ordinary meaning. And although ambiguities are to be resolved against the insurer, nevertheless the courts should not give a strained

or unnatural construction to something for the purpose of——

The Court: I agree with you on that.

Mr. McGee: A case that might be of some benefit to us here is 292——

The Court: I have it right in front of me. *Aschenbrenner v. United States Fidelity & Guaranty Co.*, 292 U. S. 80. It is one of the leading cases on the subject. In other words, that is the leading case written by Justice Stone. He wrote with great clarity. He said if there are two courses open, then the one more favorable to the insured should be adopted.

In this case we are just talking about, the same type of contention was made that Mr. Gallagher is making, both with respect to the term “student pilot” and “renter pilot.” He is attempting to give a narrowed and restricted meaning to those terms.

In the *Aschenbrenner* case it was contended that the word “passenger,” as used in a policy of insurance giving a double indemnity if the person died while a passenger on a common carrier, that it was meant as “passenger” in the limited sense that one is a passenger on a common carrier for hire. [67] They held that one who was permitted to jump on the train was a passenger in that respect.

Mr. McGee: Yes, sir. They claimed that the definition of “passenger,” as contained in the law of common carriers, pertained, and therefore, because the passenger, the alleged passenger, didn’t meet that common-carrier definition of “passenger,”

that he wasn't a passenger within the meaning of the insurance policy.

Well, as your Honor is familiar with the case, there is no necessity for me to quote the language.

The Court: I have it in front of me. I have done some studying of this case, as I usually do, after your memoranda reached me, and in preparation for the trial.

Mr. McGee: Yes, sir. Well, can we decide in this case, first, that Mr. Brown was not a bailee for hire? He was at the time in charge of a plane, using a plane on a solo flight, which had been hired for him by the Government.

Now, it is true that it was a part of a course that he was taking. It is also true that payment for that course was based upon the number of hours that a student used an airplane.

Let me refer your Honor to a federal case, the case of *Massachusetts Mutual Life Insurance Co. v. Pistolesi*, 160 F. 2d 668. That is cited in my memorandum of points and authorities. [68]

The Court: Yes.

Mr. McGee: In that case the Circuit Court of Appeals followed Section 1624 of the Civil Code of California as the rule of interpretation of a contract of insurance which was made to be performed in California. I think that we should also follow the definition of the Civil Code of California in this case with respect to a hiring.

Section 1925 of the Civil Code of California defines a hiring as follows:

“Hiring is a contract by which one gives to another the temporary possession and use of property, other than money, for reward, and the latter agrees to return the same to the former at a future date.”

That, of course, can be implied.

Now, under the undisputed facts in this case the Phipps flying school had entrusted a plane to Brown, for the use of which the Phipps school was to be reimbursed by the Government.

The amount of money that was paid Phipps varied, according to whether or not it was ground instruction, in which no flight was involved, or according to whether or not it was flight instruction, in which the student used a plane.

When the student was using a plane, then the payments, according to the contract, were a great deal more, many times more, than that paid for the ground instructions. According [69] to Mr. Phipps they varied even according to the horsepower of the plane.

The Courts, so far as there is any law upon the subject, your Honor, have taken the attitude that the relationship—and I am sure Mr. Gallagher will be unable to cite any case to the contrary, as I think we both have researched this question pretty carefully for cases in point—between the student of a flying school and the flying school, in the case where the student is using a plane belonging to the school, is that of bailor and bailee.

I have already cited the cases so holding. *Ambassador Airways v. Frank*, 124 Cal. App. 56. In

that case a student was taking a course in a school in practical and theoretical flying. He paid a certain amount for his course of instruction.

He was flying a plane belonging to the school in solo at the time of the accident, and in determining the liability as between the school and the student it was held that the relationship of bailor and bailee applied.

The courts emphasize, as we have already observed, that the words in an insurance policy are to be taken in their popular sense. The courts probably go to dictionaries for the purpose of determining the popular meaning of a phrase.

I happened to look up the definition of "rent." "Rent," as defined by the New Standard Dictionary, popularly, is "The [70] compensation paid for the use of any kind of property, movable or fixed."

I might also, your Honor, refer to *Central Flying Service v. Krieger*, a case which is not cited in my brief. It is an Arkansas case, reported in 17 *Commerce Clearing House, Negligence Cases* 171, in which the hiring of a plane by a student is referred to as a renting.

May I also refer to 6 *American Jurisprudence* 25, in which the statement is made that the general rules of bailment apply to aircraft.

It seems to me, your Honor, that if a person is taking a course of instructions from, let us say, a driving school, and while he has a car belonging to that school in his possession, while he is driving

it alone upon the public streets, that he is a bailee for hire.

Now, Mr. Gallagher has suggested that he would make a distinction between one who himself physically paid the money and one on whose behalf the money was paid. I submit, your Honor, that that is an untenable distinction. That one is a renter, regardless of whether or not he himself physically paid the money or whether or not the money was paid on his behalf.

The Court: As I said before, I do not think it is material who pays the rent, if that relationship exists.

Mr. McGee: Your Honor, in order to find in this case [71] that Mr. Brown was other than a bailee for hire—and “renter” certainly means the same thing—that if he was other than a bailee for hire, that we have to ignore definitions of the relationship of bailor and bailee, as expressed by the California Civil Code, whenever one is using property which he has to return to somebody else, for which a reward is being paid. Such a situation creates a hiring of the property, and the relationship of bailor and bailee exists.

The Court: That is right. Do you not remember the famous statement of President Coolidge, when he was asked whether the foreign countries who had borrowed money from us during the First World War should repay it, and his answer was, “They hired the money, didn’t they?”

Mr. McGee: I recall.

The Court: That is a famous statement. Where

you are getting the temporary use of something for compensation it is a hiring, whether you hire money or you hire an object. But there are many things to consider before you determine whether you are dealing with a straight hiring or bailment or another relationship.

Mr. McGee: Well, the insurance companies have been greatly criticized for using phraseology that is involved, and to which they attempt to give technical meanings. It seems to me here is a phraseology that is as plain as phraseology could be. [72]

A renter pilot to my mind means nothing other than one who is using a plane owned by the assured, for hire. Mr. Brown certainly was doing that, in this case.

Now, taking up the other phase of this, student pilot, as I understand Mr. Gallagher's argument it is essentially this: The term "student pilot" is not used in this policy in its general sense, in the sense in which anyone would understand that it is used, in hearing the phrase, as someone pursuing a course of study in a certain field, but that the term "student pilot" must be given a narrowed and restricted meaning. That it must be given the meaning in which that term is used in the C.A.A.

Mr. Gallagher: C.A.R.

Mr. McGee: I mean C.A.R., Civil Air Regulations of the Civil Aeronautics Administration, in which pilot ratings are set forth.

He makes that contention entirely upon the basis of the language used in item 7 of the declarations.

First of all, may I point this out: that in the

declarations of this policy we are dealing with the matters which define the scope of the policy as to Mr. Phipps. It is a statement setting up the circumstances under which the insurance, provided for in the policy, will be operative. Item 7 says, "The aircraft will be used only for the following purposes:" then it goes on to say, "Private business and [73] pleasure, passenger carrying for hire or reward, rental to others and student instruction.

"The aircraft will be operated only by the following pilots: Any private or commercial certificated and qualified pilot also any student pilot while under the supervision of a commercial certificated pilot having a pilot instructors rating issued by the C.A.A."

That, of course, means that there isn't any insurance, that Mr. Phipps didn't have any insurance under this policy, if the planes were being used under any other circumstances. Before the insurance provided by this policy for him attached, it had to be one of the classes of planes specified, and it had to be operated by any private or commercial certificated and qualified pilot, also any student pilot while under the supervision of a commercial certificated pilot, and so on. Unless those conditions were met, then the insurance sought to be provided by this policy was not operative.

Those declarations, as to the purpose for which the planes were to be used and the manner in which they would be used, were made a part of the policy and made declarations by virtue of which the policy was written. I am referring now to the sentence

of "Insuring Agreements." It says, "Agrees with the Insured, named in the declarations made a part hereof, in consideration of the payment of the premium and in reliance upon the statements in the declarations and [74] subject to the limits of liability, exclusions, conditions and other terms of this Policy."

Now, then, it was possible when this policy was written to cover various classes, various persons or various classes of persons, on the one hand, which were Mr. Phipps and his employees. The declarations define the conditions under which there will be any insurance at all.

Next, the policy might have also covered any student pilot or any renter pilot who was operating one of Mr. Phipps' airplanes. But that is where the policy says there is no insurance.

I do not think that it is necessary here for us to get into a technical discussion as to whether or not (f) of clause III constitutes an exclusion or not. I think that there would be terrific merit in the argument that it does not constitute an exclusion. It is under "Insuring Agreements," and defines who are insured and who are not insured.

The Court: Ultimately, it does not make much difference, except there is an exclusion clause. I referred to it because I had not seen the photostat and I had not noticed that. But it was not under "Exclusions."

The courts have said that sometimes it makes a difference, so far as the burden of proof is concerned, if you are within an exclusion it is your duty to show yourself within it. [75]

In the last analysis, when the evidence is closed, the question is not decided in the question of the burden of proof, because ultimately the question is what the evidence shows, the interpretation of the evidence. The dispute is not what the evidence shows, but how to interpret it.

There is no disagreement between you as to the conditions which obtained, so it does not make any difference.

As I said, I referred to the "Exclusions" merely because I thought that the clause was in there, but on looking at the photostat I am satisfied that it is a part of the conditions, rather than exclusions.

Mr. McGee: The language, without any qualification, excludes, if we use that term, a student pilot.

It seems to me, your Honor, the narrow and restricted interpretation insisted upon by Mr. Gallagher would, if applied in this case, amount to rewriting the terms of the policy.

Bearing in mind the salutary rule of interpretations—some of the courts say the rule works both ways—we must use the language of a policy in its popular and ordinary meaning.

Can there be any doubt that Mr. Brown was a student pilot at the time of this accident? He was certainly pursuing a course of study. Everything he was doing was in connection with a supervised course of study, conducted by [76] the school. At the very time of the accident he was executing maneuvers that were necessary in this course of training, the purpose of which was to make it pos-

sible for him to take an examination for a higher rating.

Now, why wasn't he a student? Our item 7, which Mr. Gallagher relies on, defines the conditions under which the insurance will apply at all. It uses the term "Any private or commercial certificated and qualified pilot also any student pilot"—any student pilot—"while under the supervision of a commercial certificated pilot having a pilot instructor's rating issued by the C.A.A."

Now, a student pilot—any student pilot—the phraseology is that certainly a student pilot could be either a private pilot or he could even be a commercial pilot, who might be taking a course of study for the higher rating of instructor pilot.

The company in this case obviously did not want to insure student pilots. It didn't want the hazards involved in insuring student pilots. I suspect that is one of the reasons why they excluded student pilots. But whether there is any extra hazard involved or not, the company did not want to insure anyone who was taking a course of study in aviation as a pilot.

Now, we have the same proposition here, your Honor, substantially, that we had in one of the cases I cited, the [77] case of *Bastian v. British-American etc. Company*, 143 Cal. 287, in which there was a provision in a fire policy to the effect that the policy would be void if any dynamite was kept upon the insured's premises.

There was a fire, destroying the premises, and dynamite had been upon the premises, but it didn't

have anything to do with the fire. The contention was that that was an immaterial condition of the policy, in view of the fact that the dynamite which was kept on the premises had nothing to do with causing the fire.

The court held it was immaterial, whether it had anything to do with causing the fire or not, that the contract of the parties provided the policy would be void if any dynamite was kept on the premises.

In this case, your Honor, the company didn't want to insure student pilots——

The Court: Fire insurance policies are special policies. In fire insurance policies the court is very strict in taking into consideration that you insure not only goods, but you insure them in a particular place.

You remember the famous law library case, where the library was moved from the Chronicle Building in San Francisco, I think it was, and the courts held that the insurance company had insured it at that particular place, and when it was moved from that place the insurance company had a right [78] to be consulted as to the location where these books were stored. The mere fact they were moved to a place that was even more fireproof did not make any difference. You remember that case.

Mr. McGee: Yes.

The Court: In the law of insurance it is very difficult to switch policies from one field to another. There are different considerations that enter into determining liability.

Mr. McGee: In this case, your Honor, the company says, in effect, "We don't insure any student pilot." Now, if a policy such as this covers the liability of a student or a renter pilot, then, of course, the liability of the company is much extended, as compared with what it would be if it covered just the operations of just Mr. Phipps and any employees of Mr. Phipps.

For example, take this case. Mr. Phipps was not held in the judgment, but the pilot was.

Mr. Gallagher: We dismissed the case as to Mr. Phipps.

Mr. McGee: Yes, because there was no evidence of any negligence upon his part. Mr. Phipps and his employees would not be liable, in the absence of independent negligence on their part, in the absence of, let us say, being negligent with respect to the care of the plane or with respect to some acts of theirs which contributed to the happening of the accident. But student and renter pilots might be negligent [79] because of their own negligence, irrespective of any liability upon the part of the named insured.

The company has simply said, "We do not want to insure any student pilot or renter pilot." I contend, your Honor, that the language is unambiguous and admits only of the conclusions which we urge upon the court.

The Court: All right, Mr. Gallagher. We will have a short recess first.

(Short recess taken.)

The Court: Proceed, Mr. Gallagher.

Closing Argument on Behalf of the Plaintiffs

By Mr. Gallagher:

If your Honor please, I have some comments to make with respect to the bailee proposition. As I understand it, the question of bailee is that a man may be a bailee without paying anything for the use of the article. If he doesn't pay for the use of the article himself, and someone else does, the someone else who makes the payment is the bailee for hire, and the person who is in charge of the article, as the agent of the bailee for hire, of course, would be bound to perform all of the obligations of his principal toward the bailor. But that is not involved in this case.

We have the renter pilot. Now, Mr. McGee read to your Honor a definition of rent. But he didn't go quite far enough in the dictionary. "Renter" is also defined as "One [80] who rents lands, tenements, or other property; usually said of a lessee or tenant."

Now, Mr. McGee wants your Honor to construe this policy by giving the words their usual and ordinary meaning. Well, if we do that, with reference to "renter pilot," "renter" is an adjective and it defines "pilot," the noun. So we would say the lessee pilot, the man who makes the arrangements to rent the airplane.

Just as Mr. Phipps testified here, if I went out or if someone else went out to him and exhibited the proper qualifications, he would rent an airplane to that person for the purpose of permitting that

person to pilot the aircraft, and such person would be a renter pilot.

Now, with reference to the "student pilot" argument, Mr. McGee says to your Honor that the insurance company did not want to assume the hazards of indemnifying a student pilot because the student pilot is not qualified, he is inexperienced, he is a bad risk.

The evidence in this case, if your Honor please, shows that Mr. Brown was certified and approved by the proper governmental agency as a certificated and qualified private pilot. The Government states that Mr. Brown was perfectly safe, insofar as his ability to fly the airplane was concerned, and to navigate it, and so forth and so on. Not only to fly that airplane on the civil airways which are used [81] by scheduled air lines, but to fly the airplane anywhere else in the United States he might choose to go. Not only to fly it for himself, but to carry passengers with him, just so long as he made no charge for carrying those passengers.

Now, I can readily understand why the insurance company would insure Mr. Phipps against his liability in the event a student pilot caused some damage, but would refuse to extend the coverage to the student pilot. The reason for it is that if Mr. Phipps turned an airplane over to a student pilot, but was not negligent in doing so, then Mr. Phipps wouldn't be liable for any damage caused by the student pilot for the reason that the student pilot is not an agent, servant, or employee of the

named insured. But the insurance company was willing to insure any private certificated and qualified pilot who was not a renter pilot, and that is exactly the situation here.

Counsel referred to the fact we weren't able to recover against Phipps. Well, I tried the case. I could find no evidence that Mr. Brown was the servant, agent, or employee of Mr. Phipps. Mr. Brown was a duly certified private pilot. There was no evidence to show that Mr. Phipps was negligent in turning the airplane over to Mr. Brown, and therefore I deemed it my duty to the court to dismiss the action with prejudice, insofar as Mr. Phipps was concerned.

But the fact that as to Mr. Phipps the action was [82] dismissed voluntarily hasn't a thing to do with the issues involved in this case. I respectfully submit to your Honor that Mr. Brown was not a student pilot and was not a renter pilot.

Your Honor will notice in Part 43 of the Civil Air Regulations restrictions with reference to the rights of student pilots, private pilots, and commercial pilots. The restrictions with reference to student pilots are that they may not solo, for instance, until they have received a notation on the back of their student pilot's permit, and they cannot, under any circumstances, carry passengers, and they cannot travel anywhere they choose—they must stay within certain areas—so that you have clear indications of the distinctions.

Now, counsel says that he wants your Honor to decide this case on the theory that simply because

Mr. Brown was building up time and was out there to do certain turns, because his instructor told him to do the turns, that therefore he is a student pilot and that that is the common meaning ascribed to those words.

I respectfully submit to your Honor that the trouble with that argument is this: Everyone is presumed to know the law. Therefore, the common man knows that under the terms of the federal statute, the Civil Aeronautics Act of 1938, and also under the statutes of the State of California, that no [83] person may, under any circumstances, be a pilot of an airplane unless he is qualified and permitted and licensed to do so, under the federal statutes and the Civil Air Regulations. Therefore, when the common, ordinary man, presumed to know the law, sees the words "student pilot" and when he reads this policy, which says "private pilot" and "commercial pilot" and "duly certificated," he knows that the insurance company is talking about the kind of a student pilot who is referred to in the Civil Air Regulations, and not to a pilot who is already qualified but who is taking some further work to increase his pilot rating.

That is all that Mr. Brown was doing here. He was not a student pilot. He was exactly in the same category as many men who, during the war, had private pilot ratings and were taken by the Army—and contract schools—and they were taken by the Navy, and were put through instructor's schools. They were not referred to as "student pilots" and they weren't student pilots, but they were given

further training by the services in order to qualify them as instructors.

Now, I respectfully submit to your Honor that this policy must be construed most strongly against the insurance company.

If the insurance company had wanted to exclude from coverage under the omnibus clause a private pilot, a duly certificated and qualified pilot, whom they specifically mention on the first page of their policy, when that pilot was [84] taking instructions to raise his grade to a commercial license, they could very easily have done so. They didn't do so.

If there is any ambiguity in the words "student pilot" or if those words may mean two things, one of which will give coverage to Mr. Brown and the other of which will not give coverage to Mr. Brown, then I respectfully suggest that under the rule those words should be construed in the way which will give coverage to Mr. Brown.

One very reasonable way to construe those words is to determine what is the meaning of "student pilot" under the federal statutes, rules and regulations which are the sole and exclusive governing rules with reference to flying airplanes in the air throughout the State of California and elsewhere.

The Court: All right, Mr. McGee, do you have anything further?

Mr. McGee: Yes, your Honor.

Closing Argument on Behalf of the Defendant

By Mr. McGee:

I think that I might clarify my argument with reference to item 7 of the declarations. Judging

from Mr. Gallagher's reply argument, I am afraid I didn't make myself quite clear.

Mr. Gallagher is assuming that the page of this contract entitled "Declarations" is the insuring agreements. He is [85] disregarding the obvious intent of the matter stated under item 7.

Under item 7 Mr. Phipps declared to the company that the purposes for which the planes would be used were as stated, and he declared to the company that the aircraft will be operated by a private pilot or commercial pilot or a student pilot under supervision.

Now, if Mr. Phipps had conducted a business other than he declared he was going to, with respect to this policy, then we would have a question as to whether or not, as to Mr. Phipps or his employees, the company could not deny liability because the aircraft was used contrary to the purposes and the conditions under which it was stated by Mr. Phipps in his declarations it would be used.

But when we come to the "Insuring Agreements" we reach the core of the contract as to the persons to whom the benefits of this policy are extended and are not extended, providing the contract is in effect at all, providing the contract has not been nullified because of some failure to follow the declarations made by the assured as to the nature of the use and the conditions of the use of the aircraft.

All I can say again, your Honor, is that when the company specifies those who are entitled to the benefits of the policy, it uses a term as inclusive

and as simple as language would be used in an insurance policy. [86]

The Court: Mr. Gallagher, do you want to have the last say?

Mr. Gallagher: I have said everything that I care to say, your Honor. [87]

The Court: The question confronting the court is one of interpretation of the words in a contract of insurance. The facts are without dispute.

We will start with the fact preceding the filing of this action, that a judgment was recovered by the plaintiffs here, as the heirs at law of the deceased, Walter John Petro, for death caused in a regrettable accident, which the judgment of the Superior Court found was brought about by the negligence of Philip Ray Brown.

It is also undisputed that Philip Ray Brown had had a private pilot's license and that he was receiving additional instructions under the GI Bill of Rights in a school operated by the Phipps Flying Service. Phipps Flying Service had a contract for education and training with the Veterans Administration, under which the Veterans Administration, as an instrumentality of the Government, agreed to pay for instructions of students. The rate was fixed on an hourly basis. Dual flight instruction was at the rate of \$10.86, and solo flight was at the rate of \$7.86 per hour.

The defendant here had entered into an agreement of insurance with Harry Phipps, doing business as Phipps Flying Service, denominated aviation liability policy. [88]

The defendant denies liability under it by reason of the clauses denominated (e) and (f) of Clause III of the insuring agreements.

This clause after defining the words "insured," specifies that it shall not include the following:

"(e) any persons other than officers, executives and employees of the named Insured, or any agent of the named Insured, if the business of the named Insured (insured as such) is that of an aircraft manufacturer, or aircraft engine manufacturer, or aircraft repair or service station, or aircraft sales agency, or hangar keeper, or airport operator;

"(f) or any person who is a student or renter pilot."

Subparagraph (f) is really the paragraph upon which the defense is based.

In approaching the problem I have had the benefit of the cases which counsel's memoranda have called to my attention, and my own experience in the field of insurance law.

Two fundamental principles are to be observed. First, that in construing insurance policies the courts insist that the contract shall be construed liberally, in accordance with the usual rules in such cases.

In *Boulter v. Commercial Standard Insurance Co.*, 1949, [89] Ninth Circuit, 175 F.2d 763, the court said, at page 767:

"Not only must the policy be liberally con-

strued in favor of the insured, in accordance with the usual rule in such cases, *Aschenbrenner v. U. S. Fidelity & Guaranty Co.*, 292 U. S. 80, 54 S.Ct. 590, 78 L.Ed. 1137, but the language of the Commissioner's rider must be construed to accomplish the purposes of the Highway Carriers' Act. We think that the legislative requirement was intended to secure the general public in respect to accidents caused by such trucks when operating on the public highways, whether loaded, or merely cruising in search of loads."

In that case, as I stated before, a jury had decided in favor of liability. Under the power given me by the Federal Rules, I reserved a motion for a judgment, notwithstanding the verdict, until after the jury came in. And after the jury came in and arguments presented on the part of counsel, I became convinced, and I wrote an opinion that was very convincing to me, but evidently not convincing to the Court of Appeals, to the effect that the question should not have been submitted to the jury at all, and that on the facts involved there was no liability.

The opinion was, in my opinion, entitled to the same consideration as found in *Boulter v. Commercial Standard Insurance Co.*, 78 F.Supp. 895. I referred to my own cases, [90] and, as I used to do when I taught law, I referred to my successes as well as to my failures.

This case served to point up how courts can arrive

at different conclusions on the basis of the same law. The decision of the Court of Appeals emphasizes the point, that in considering a contract of insurance of this character it must be construed most favorably in favor of the insured. In so doing we are not limited to the particular wording of any part of the contract. The contract must be considered as a whole, and if necessary to take into consideration riders attached, that might throw light upon the subject, those riders are to be read into the insurance policy for that purpose.

In that particular case the court resorted to the rider required by the Highway Carriers' Act to sustain its contention that, although the evidence showed clearly that at the time of the accident no goods for hire were being carried, and that the man was not on a return trip, but, nevertheless, because he testified that on this return trip which he took chiefly for the purpose of paying an insurance premium in San Francisco, although returning from a vacation spot where he had taken his wife and mother-in-law, that his statement that he had thought of soliciting while he was there, that is, soliciting hauling, and although he did not get around to it, that that was sufficient to come within the rule of the [91] return trip which, of course, says that if you go one way and carry a load and return to your fixed terminus, as it were, your return trip is just as much a part of your trip as the going trip.

The case illustrates the view that in cases of doubt—and certainly that case presented a doubtful

situation—the doubt should be resolved in favor of the insured.

Incidentally, in that case I did something which is possible to do under the federal courts, and I made it absolutely unnecessary to retry the case. I denied a motion for a new trial. I could have decided in the alternative by saying, “If this is reversed I will grant a new trial.” I would not do that. I denied the motion for a new trial. All the court had to do was decide the legal question. If they decided against my ruling, it automatically restored the verdict of the jury. If it agreed with me, the judgment entered notwithstanding the verdict stood. In either event it was not necessary to retry the case. I have always pointed to that power as indicating when judges are given discretion that that discretion can be used to great advantage to achieve justice.

Here was a case where I was greatly worried by the verdict of the jury. I expressed my worry by writing a very exhaustive opinion. I thought I had found every case in California that bore on the subject. I did not want to [92] substitute my judgment of the facts for that of the jury, but I felt that I should not have submitted the case to the jury, in the first place. By exercising this power I was in a position to merely delay the conclusion of the case, and, whether affirmed or reversed, that it would terminate the case without requiring another trial.

Now, there is one other principle before us, and I think the case that Mr. McGee cited contains a

very sincere statement of law. It is written by my former colleague on the Superior Court, Judge Doran. It is *Greenberg v. Continental Casualty Company*, 24 C.A. (2d) 506. The court said, at page 513:

“The law applicable to the disputed questions is solely the law of contracts, and in that connection it is elementary that parties to a contract are entitled to have the agreement enforced according to its terms. When, of course, a contract is uncertain and ambiguous it becomes the duty of the court to determine, if possible, what is intended, but in the absence of such ambiguity and uncertainty, and when the contract is in all respects valid, the power of the court is limited to enforcing such contract according to its terms. In that connection it might be appropriately observed that, ‘It is competent for the parties to make whatever contracts they may please, [93] so long as there is no fraud, or deception or infringement of law. Hence the fact that the bargain is a hard one will not deprive it of validity.’ (*Herbert v. Lankershim*, 9 Cal. (2d) 409 (71 Pac. (2d) 220).)”

The courts of California, in interpreting the words of a contract of insurance, have applied the general rule which is set forth in the California Civil Code, Section 1644, which says: “The words of a contract are to be understood in their ordinary and popular sense.”

In *Massachusetts Mutual Life Insurance Company v. Pistolesi*, 160 F.2d 668, Judge Denman adopted the principle as a criterion to follow. He says, "In California, insurance policies are so construed." That is, according to ordinary and popular sense.

But there is also one other principle which is to be borne in mind, and that is where parties to a contract, especially an insurance contract, are dealing with the words of an art, that the presumption is they are used in the contract in the sense in which they are used in that art. When we speak of "art," we do not mean necessarily the sense in which that word is used in patent law or in copyright law. But we mean the sense in which the word is used in the particular branch of human activity with which the contract deals. So, when that is the case and the word, as used in [94] the art, has a definite meaning, then ordinary dictionary definitions do not help us.

To come to the contract, we find that in the "Declarations, Item 7," it contains the following statement:

"The aircraft will be used only for the following purposes: Private business and pleasure, passenger carrying for hire or reward, rental to others and student instruction."

And, further:

"The aircraft will be operated only by the following pilots: Any private or commercial certificated and qualified pilot, also any student

pilot while under the supervision of a commercial certificated pilot having a pilot instructors rating issued by the C.A.A.”

The “Insuring Agreements,” in defining the insured, excluded the persons referred to under clauses (e) and (f).

Counsel seeks to draw the distinction between Item 7 of the “Declarations” and clause (f) of III of the “Insuring Agreements,” as though the first one were merely a limitation of scope of the use of the airplanes, and the second a condition. I believe the two go together and must be construed together.

If there is a conflict between the typed portion which is written into the contract and the printed portion which is [95] paragraph (f) of Section III, then under a rule of construction which considers the typed portion as a special condition which modifies the printed portion, which is usually added to every contract, especially one like this, which was written on a separate page, then that rule applies. That is a very well-known rule.

We also have the additional rule that construction should be reasonable and should not give a construction that would result in absurdity.

In the first place, the typed portion of this contract showed that the words in this were words of art, that they were using the words that were covered by the regulations. We have a direct reference to the ratings issued by the C.A.A. So it is quite evident they were writing this contract and were

not using Webster's Unabridged Dictionary. They were using words which had definite meaning in the regulations.

So that when they referred to the fact that the aircraft covered was to be operated only by private or commercial certificated and qualified pilots, and also any student pilot while under the supervision of a commercial certificated pilot, they used all those three words in the sense in which they are used in the regulations.

The record in this case shows that Mr. Brown had a private certificated license. He was not a student pilot. He was a person who had satisfied the requirements to entitle [96] him to that, to the certificate. Had he wanted the certificate changed to a commercial certification, he needed additional instructions. These he proceeded to secure.

While he was securing these additional instructions he was still a private certificated pilot, and not until he had satisfied the authorities that he was entitled to the broader license did he lose his standing as a private certificated pilot. If he had secured the higher standing, then this certification would have been taken away and he would have ceased to have been a private certificated pilot.

I am of the view, therefore, that, in the light of the facts here and the language of this section, the word "student" in Section III, paragraph (f), cannot apply to the situation here. That that word implies a novice, as someone used the word, a person who has no standing as a pilot, and who is merely receiving instructions. It is the same as a

student driver, under the California Motor Vehicle Act, who is one who is given a learner's certificate which enables him to sit at the wheel of a vehicle and receive instructions in driving, so long as he has someone else along who directs him. That learner's certificate is picked up as soon as he has passed his driver's test and the test of the Motor Vehicle Act, and it is replaced by a regular driver's license.

A person who already has one type of pilot's license, and who seeks additional instruction to secure a broader license, [97] is in the same position as a seaman, an able-bodied seaman, who seeks a higher rating in the merchant marine. We all know that he must take an examination to satisfy the authorities that he is entitled to the higher rating. The first question we ask him, as a seagoing man, is, "What papers do you carry?" It will be second mate, first mate, or——

Mr. Gallagher: Apprentice seaman.

The Court: ——apprentice seaman, able-bodied seaman. Each of them is a stage of development. By the same token, each of them is a distinct category, so recognized by maritime law. I am using that as an illustration. That is one of the easiest examples that occur, which shows we are dealing with a special business or enterprise and we are using words of art and we are presumed to use them in a sense in which they are known. It could not be argued that we should interpret "able-bodied seaman" as the words are interpreted in the dictionary. It would be absurd. The word "able"

has acquired a definite meaning in that respect and I do not think it has anything to do with ability at all.

I am of the view that the limitation of liability to student pilots was clearly intended to apply to persons who take their first instructions before they secure any license which entitles them to operate a plane, under the circumstances. It was not intended to cover a person who already had a license as a private certificated pilot, because if it [98] were not interpreted in this manner we would have the anomalous position of a person who, by the provision of this typewritten portion of the contract, had a right to operate this aircraft, with a condition that is of a character so strictly construed that if the person deviated from that and allowed operation by others it would destroy liability or suspend liability until there had been a cure of the provision.

We have a person who is specifically designated as one of the types of persons who is allowed to operate this aircraft and as to whom the insurance is in full force, and yet we get third persons being deprived of the benefits of this policy which specifically designates the tort feisor, by reason of the fact that elsewhere in the policy there is a word which, if interpreted not in the sense in which the word is interpreted in the art but in the sense in which it is interpreted in the dictionary, might cover the person.

I agree, of course, that the word "student" is broad enough to cover anyone who studies. I gave a lecture the other day to the Law School at

U.C.L.A. and I addressed them as "fellow students." I told them I did not do it facetiously, but I did it to impress upon them that after 40 years, 23 years of which I spent on a bench, I still consider myself a student, and that the profession they were entering into would require their continuing to be students for the rest of their lives. So the word "student" may apply to anyone that [99] receives instructions, who receives tuition from someone.

Supposing I should decide to go back to teaching law, as one of the judges of our courts, Owen Roberts, who retired from the Supreme Court, did, and went back to teaching. He is Dean of the University of Pennsylvania now. He did that, not by retiring, but he resigned, and therefore he could do that.

Supposing Judge Roberts were to decide he wanted to teach a course in international law and that he needed additional tuition and enrolled himself under one of the international lawyers to study law. It could not be contended that a policy that referred to law students would cover that person, or that a clause which said "apprentices in law" would cover such a person, although in the dictionary meaning anyone who is trying to develop a skill, which he does not possess, may be an apprentice for that particular purpose.

I am satisfied that to interpret the contract as the defendant contends, we would have to find a contradiction between this clause which excludes students and the clause which specifically provides

that a person who has the type of license which Mr. Brown had can operate the airplane, and that the insurance policy specifically covered him. Assuming that as a contradiction, then we must interpret it in favor of the insured, and such interpretation would also be commanded by the rule that typewritten portions of a document, [100] put in specifically for the preparation of the particular instrument, are to be given greater weight than the printed portions, and if there is a conflict between the two it is to be assumed by the typewritten portion they put in that they intended to modify the general clauses which are contained elsewhere.

Neither does the renter clause help the defendant. Section 1925 of the Civil Code defines "hiring":

"Hiring is a contract by which one gives to another the temporary possession and use of property, other than money, for reward, and the latter agrees to return the same to the former at a future time."

That section dates back to 1872. I checked the last edition of the Code and it has been, despite the adoption of the uniform bailment statute, absolutely unchanged, and it reads identically in the newest edition of the Code for 1949.

The general definition is modified by Section 1930, which says, "Thing let for a particular purpose. When a thing is let for a particular purpose the hirer must not use it for any other purpose; and if he does, he is liable to the letter for all damages resulting from such use, or the letter may treat the contract as thereby rescinded."

I think in that sense anyone who is allowed to use the property of another, as the result of a contract of employment, [101] may be said to be a hirer. For instance, my secretary is permitted, under the law of the United States, to use a typewriter which the Government furnishes. In one sense, if a question of liability arose, it could be said, so far as her relationship to the machine is concerned, she hires it. She is allowed to use it temporarily. It is a gratuitous bailment. But her relationship to the Government and to me is not determined by the incidental fact that, as part of her secretarial duties, she is allowed to use this typewriter. Her relationship to the Government and to me is determined by the agreement which lays down the conditions of her employment. And the mere fact that incidentally she is allowed to use temporarily property, the safety of which she is charged with, would not turn the agreement into a contract of hire.

Now we come to the contract under which the instruction was being received. It calls for "Contract for Education and Training—Public Law 346, Seventy-Eighth Congress, as Amended.

"This contract made as of this 25th day of June, 1947, between the Veterans Administration and Phipps Flying Service (hereinafter referred to as the Contractor), an institution established and existing under the laws of the State of California and located at El Monte Airport, El Monte, California

"Witnesseth: [102]

“Whereas, the Veterans Administration is authorized to pay for such courses of education and training as eligible veterans may elect under and within the limits of Public Law 346, as amended, and

“Whereas, the Contractor has been properly approved as being qualified and equipped to furnish education and training under Public Law 346, as amended, by The State Department of Education, State of California

“Now, Therefore, in consideration of the promises and mutual covenants and agreements hereinafter contained, the parties hereto do mutually agree as follows:

“Article 1. Instruction

“(a) The Contractor will provide instruction and the necessary books, supplies, and equipment therefor, as set forth in paragraphs (b) and (c) hereof during the period beginning July 1, 1947, and ending June 30, 1948, for such eligible veterans who choose to enroll in and are accepted or retained in courses provided by the Contractor according to the standards of the Contractor and who are approved by the Veterans Administration as entitled to education and training under Public Law 346, Seventy-eighth Congress, as amended. [103]

“(b) The Contractor will provide such courses of instruction at the charges listed and described in Schedule 1 attached hereto or as set forth in the catalogs, bulletins, or other publications or sched-

ules which are submitted herewith and identified in Schedule 1 as a part of this contract.

“(c) The Contractor will furnish outright to the veteran, as needed, such books, supplies, and equipment as are necessary for the satisfactory pursuit and completion of the courses as referred to in paragraph (b) above. It is understood and agreed that the books, supplies, and equipment to be so furnished will consist of those items required, but in no instance greater in variety, quality, or amount than are required by the Contractor to be provided personally by other and all students pursuing the same or similar courses.”

Then follow other clauses which do not interest us, relating to compensation for books, supplies, and equipment, method of payment, limitation of \$500.00 for individual course, and providing for records and reports on individuals, for inspection, and for pro-rata of charges.

Article 6 is the “Termination,” and Article 7 is “Limitation.”

Then follows, as a part of the contract, a type-written [104] portion describing the rates, and it gives the maximum length of complete course in terms of weeks, and a minimum in terms of weeks, and gives the cost of instruction, which, for flight instruction in 65 H.P. aircraft, specifies: Dual at \$10.86 per hour, and Solo at \$7.86 per hour.

Then it specifies the cost of the ground instruction and the books and supplies, and the total cost of the course, which is: flight instruction, a maximum of \$395.40 and a minimum of \$320.10, and for

ground instruction a maximum of \$30.00 and a minimum of \$30.00. Then there is a maximum for books, supplies, and equipment.

Then it lists the commercial pilot course, and then other courses, which are catalogued.

Now, this contract is properly a contract for education. The Government agreed with the operator of the school that he should furnish this instruction which the Congress of the United States, out of its sense of gratitude to those that served in the armed forces, paid for.

Now, as a matter of fact, there is not even a direct provision designating the airplanes which are to be used. I presume that one cannot perform a solo flight except in an airplane. The possibility of having a flight in a dummy, I presume, might call for a dummy plane. But this contract is a contract for education, and the airplane to be furnished and the supplies, which are listed along with the books [105] and other things, are the media through which the instruction is to be imparted.

So the mere fact that incidental to the instruction, as a part of it, it calls for the use by the student of an airplane, does not change the contract into a contract for hiring, any more than the fact—using the same illustration—that my secretary, in the performance of her duties, uses a typewriter. She may occasionally even use a stenciling machine. That does not change the contract which she has entered into with the Government. And in the contract for the hiring of a typewriter, especially, it is an employer and employee relationship. This

relationship is the relationship of master and pupil.

In judging the application of this contract we have to determine the relationship according to the conditions which the parties themselves, at the time, laid down, and because one facet of the relationship involved a temporary use of an airplane, which might, in a dictionary sense, be called a hiring, you cannot transform a contract to furnish education and instruction into a contract of hiring, in order to bring it within an exception of the rule, within a rule which says that the insurance policy shall not apply to hiring, especially when the policy within itself specifies specifically that a person who has a private pilot's license is permitted to operate the plane. [106]

I am of the view that the contract of insurance here covered the particular liability, and that the death of the deceased was caused while the plane was being operated by a person who had a right to operate it, and that whether we apply the law of California or whether we apply the law of the United States, the result is the same.

I think my remarks may be closed by repeating the words of Mr. Justice Stone in *Anschenbrenner v. United States Fidelity & Guaranty Co.*, 292 U. S. 80, at page 84:

“The phraseology of contracts of insurance is that chosen by the insurer and the contract in fixed form is tendered to the prospective policy holder who is often without technical training, and who rarely accepts it with a law-

yer at his elbow. So if its language is reasonably open to two constructions, that more favorable to the insured will be adopted, . . . and unless it is obvious that the words are intended to be used in their technical connotation they will be given the meaning that common speech imports."

In this case I have pointed to the fact that the words used were words which had gone into common speech by being the words of an art. The contract was drawn with full knowledge of the regulations and with the very references to the authority which made the regulations, so that the [107] interpretation of the words must be that which is consistent with the regulations.

Judgment will be for the plaintiffs, as prayed for in the complaint.

You, Mr. Gallagher, will prepare findings, which you will serve on the other side. Under our rules the other side will have five days in which to file objections.

Thank you very much for the quickness with which you presented the case. I may say, gentlemen, the way the facts were, I do not see what purpose a jury would have served. I would not have allowed it to have gone to the jury. It is a question of statutory interpretation, as it turned upon a question of interpretation of words. I doubt if I would have felt justified in allowing the case to have gone to a jury, on the ground that it is ambiguous.

Mr. Gallagher: Would your Honor allow me,

say, until the 20th of December within which to prepare these findings? I am very much swamped with matters that I am compelled to finish to meet deadlines.

The Court: All right.

Mr. McGee: I know both Mr. Gallagher and I want the insurance contract in evidence. It has been used, and there was some doubt in my mind as to whether or not it was actually introduced in evidence.

Mr. Gallagher: May I offer it? [108]

The Court: No, you do not have to do that. We will give the contract of insurance, which is attached to defendant's answer, an exhibit designation, and it will be received in evidence.

The Clerk: Plaintiffs' Exhibit 3.

Mr. McGee: So stipulated.

The Court: It may be received.

The Clerk: Plaintiffs' Exhibit 3 in evidence.

(The document referred to was marked Plaintiffs' Exhibit No. 3 and received in evidence.) [109]

PLAINTIFFS' EXHIBIT No. 3

Aviation Liability Policy
The Ohio Casualty Insurance Company
Hamilton, Ohio

A Capital Stock Company

[Penciled in margin: F083763 1405 Kenwood.]

Declarations

- Item 1. Name of Insured: Harry Phipps dba Phipps Flying Service and/or Coast Aero Sales, a California corporation hereinafter referred to as the named insured). Address: El Monte Airport, El Monte, California. The occupation of the Insured is Flying Service.

Item 2. Term of Policy: From February 29, 1948, to February 29, 1949, 12:01 A.M. Standard Time at the address of the Named Insured as stated herein.

Item 3. The insurance afforded is only with respect to such and so many of the following coverages as are indicated by specific premium charge or charges. The limit of the Company's liability against each such coverage shall be as stated herein, subject to all of the terms of this policy having reference thereto:

Coverages	Limits of Liability	Premiums
A. Bodily Injury Liability (Excluding Passengers):		
	\$ 50,000.00 Each Person	
	\$200,000.00 Each Accident	\$ 978.19
B. Bodily Injury Liability (Passengers)		
As respects two-place aircraft:		
	\$ 10,000.00 Each Person	
	\$ 10,000.00 Each Accident	\$ 270.00
C. Property Damage Liability:		
	\$ 20,000.00 Each Accident	\$ 785.45
D. Medical Payments:		
	Not Covered	Nil
Endorsement #2 Minimum and Deposit Premium:		\$ 100.00
	Total Annual Premium....	\$2,133.64

Item 4. Named Insured's interest is that of Owner.

Item 5. The aircraft will be hangared at El Monte Airport, located at El Monte, California.

Item 6. Description of the aircraft:
As per schedule of aircraft as shown on Endorsement Number 1 attached hereto.

Item 7. The aircraft will be used only for the following purposes: Private business and pleasure, passenger carrying for hire or reward, rental to others and student instruction. The aircraft will be operated only by the following pilots: Any private or commercial certificated and qualified pilot, also any student pilot while under the supervision of a commercial certificated pilot having a pilot instructors rating issued by the C.A.A.

Item 8. No Insurer has ever cancelled, or declined to issue or renew any aircraft insurance to the named insured except as follows: No Exceptions.

ELLIOTT & COMPANY,

Countersigned

By /s/ E. F. CAWFORD,
Authorized Agent.

The Ohio Casualty Insurance Company
Agrees with the Insured, named in the declarations made a part hereof, in consideration of the payment of the premium and in reliance upon the statements in the declarations and subject to the limits of liability, exclusions, conditions and other terms of this Policy:

Insuring Agreements

I. Coverage A—Bodily Injury Liability (Excluding Passengers)

To pay on behalf of the Insured all sums which the Insured shall become obligated to pay by reason of the liability imposed upon him by law for damages, including damages for care and loss of services, because of bodily injury, including death at any time resulting therefrom, sustained by any person or persons, other than passengers, caused by accident and arising out of the ownership, maintenance or use of the aircraft.

Coverage B—Bodily Injury Liability—Passengers

To pay on behalf of the Insured all sums which the Insured shall become obligated to pay by reason of the liability imposed upon him by law for damages, including damages for care and loss of services, because of bodily injury, including death at any time resulting therefrom, sustained by any passenger or passengers, caused by accident and arising out of the ownership, maintenance or use of the aircraft.

Coverage C—Property Damage Liability

To pay on behalf of the Insured all sums which the Insured shall become obligated to pay by reason of the liability imposed upon him by law for damages because of injury to or destruction of property (excluding property owned, rented, leased, in charge of, or transported by the Insured), including the loss of use thereof, caused by accident and arising out of the ownership, maintenance or use of the aircraft.

Coverage D—Medical Payments

To pay to or for each passenger, pilot and member of the crew, who sustains bodily injury, sickness or disease caused by accident, the reasonable expense of necessary medical, surgical, ambulance, hospital and professional nursing service, and in the event of death resulting therefrom reasonable funeral expense, all **incurred within one year from the date of accident**, sustained while in, or upon entering or leaving the aircraft insured herein.

II. Defense, Settlement, Supplementary Payments

It is further agreed that as respects insurance afforded by this policy the Company shall

- (a) defend in his name and behalf any suit against the Insured alleging such injury or destruction and seeking damages on account thereof, even if such suit is groundless, false or fraudulent; but the Company shall have the right to make

such investigation, negotiation and settlement of any claim or suit as may be deemed expedient by the Company;

- (b) pay all premiums on bonds to release attachments for any amount not in excess of the applicable limit of liability of this policy, all premiums on appeal bonds required in any such defended suit, but without any obligation to apply for or furnish such bonds, all costs taxed against the Insured in any such suit, all expenses incurred by the Company, all interest accruing after entry of judgment until the Company has paid, tendered or deposited in court such part of such judgment as does not exceed the limit of the Company's liability thereon, and expenses incurred by the Insured, in the event of bodily injury, for such immediate medical and surgical relief to others as shall be imperative at the time of accident.

The Company agrees to pay the amounts incurred under this Insuring Agreement, II, except settlements of claims and suits which are covered under Agreement I, in addition to the applicable limit of liability of this policy.

III. Additional Insured

The term "Named Insured" shall mean only the Insured specified in Declaration 1.

The term "Insured" shall include not only the Named Insured but also any other person while riding in, or a pilot approved hereunder, while operating such aircraft, and any other person legally responsible, other than as pilot, for its operation, provided such operation is with the permission of the Named Insured, but shall not include:

- (a) any person with respect to any loss against which he has other valid and collectible insurance;
- (b) any person with respect to bodily injury to or death of any person who is a named Insured;
- (c) any aircraft manufacturer, or aircraft engine manufacturer, or any aircraft repair or service station, or aircraft sales agency, or hangar keeper or airport operator, or flying school;
- (d) any employee of an Insured with respect to any action brought against said employee because of bodily injury to or death of another employee of the same Insured injured, in the course of employment by such Insured in an accident arising out of the maintenance or use of said aircraft in the business of such Insured;
- (e) any persons other than officers, executives and employees of the named Insured, or any agent of the named Insured, if the business of the named Insured (insured as such) is that of an aircraft manufacturer, or aircraft engine manufacturer, or aircraft repair or service station, or aircraft sales agency, or hangar keeper, or airport operator;
- (f) or any person who is a student or renter pilot.

IV. Temporary Use of Substitute Aircraft

In the event the named Insured is an individual and owns only the aircraft insured hereunder, while such insured aircraft is withdrawn from use because of its breakdown, repair, servicing, loss or destruction, such insurance as is afforded by this policy with respect to such aircraft applies with respect to another aircraft of no greater horsepower or seating capacity not owned by the named Insured and while temporarily used as a substitute for such aircraft. This insuring agreement does not cover as an Insured the owner of the substitute aircraft or any employee of such owner.

V. Policy Period, Territory, Purposes of Use

This policy applies only to accidents which occur during the policy period while the aircraft is within the United States of America, its territories or possessions, the Dominion of Canada, Newfoundland, or the Republic of Mexico, and is owned, maintained, and used for the purposes stated as applicable thereto in the Declarations.

Exclusions

This Policy Does Not Apply :

(a) to bodily injury to or death of any employee of the Insured while engaged in the duties of his employment; or to any obligation for which the Insured may be held liable under any Workmen's Compensation Law; or to liability assumed by the Insured under any contract or agreement; or while the aircraft is used, with the knowledge or consent of the Insured for unlawful purposes;

(b) while the aircraft is being operated in violation of the regulations of the Civil Aeronautics Administration applying to (1) aerobatic flying, (2) instrument flying, (3) repairs, alterations and inspections, (4) night flying; or while the aircraft is being operated in violation of the terms of the Civil Aeronautics Administration Pilot Certificate or Airworthiness Certificate; or while the aircraft is being used for purposes other than those specified in the schedule of declarations or while being flown or driven (other than taxiing by certificated pilots and mechanics) by any person other than the pilots named or described herein; or while the aircraft is being operated in or in connection with any pre-arranged race, speed or endurance test, or in any attempt at record breaking or in aerobatic flying; or any use in respect to which a waiver issued by the Civil Aeronautics Administration is required, whether granted or not.

Definitions

1. Aircraft Defined.

The word "aircraft" wherever used in this policy shall mean the aircraft described herein. When two or more aircraft insured hereunder, the terms of this policy shall apply separately to each.

2. Passenger Defined.

The term "passenger" or "passengers" wherever used in this policy shall mean any person or persons (other than a person operating the aircraft or a member of the crew of said aircraft while in the course of their employment by the Insured) while in or on or while boarding the aircraft for the purpose of riding therein or while alighting from the aircraft following a flight or attempted flight therein.

3. Acrobatic Flying Defined.

The term "acrobatic flying" wherever used in this policy shall mean any intentional maneuver of the aircraft not necessary to air navigation; but the term "acrobatic flying" shall not mean flying required by the Civil Aeronautics Board for Pilot Certification qualification.

Conditions

1. Limits of Liability.

The limit of bodily injury liability stated in the declarations as applicable to "each person" is the limit of the Company's liability for all damages, including damages for care and loss of services, arising out of bodily injury, including death at any time resulting therefrom, sustained by one person in any one accident; the limit of such liability stated in the declarations as applicable to "each accident" is, subject to the above provision respecting each person, the total limit of the Company's liability for all damages, including damages for care and loss of services, arising out of bodily injury, including death at any time resulting therefrom, sustained by two or more persons in any one accident.

The inclusion herein of more than one Insured shall not operate to increase the limits of the Company's liability.

The limit of liability for medical payments stated in the declarations as applicable to "each person" is the limit of the Company's liability for all expenses incurred by or on behalf of each person who sustains bodily injury, including death resulting therefrom, in any one accident.

2. Notice of Accident.

Upon the occurrence of an accident written notice shall be given by or on behalf of the Insured to the Company or any of its authorized agents as soon as practicable. Such notice shall contain particulars sufficient to identify the Insured and also reasonably obtainable information respecting the time, place and circumstances of the accident, the names and addresses of the injured and of available witnesses.

3. Notice of Claim or Suit.

If claim is made or suit is brought against the Insured, the Insured shall immediately forward to the Company every demand, notice, summons or other process received by him or his representative.

4. Assistance and Cooperation of the Insured.

The Insured shall cooperate with the Company and, upon the Company's request, shall attend hearings and trials and shall assist in effecting settlements, securing and giving evidence, obtaining the attendance of witnesses and in the conduct of suits; and the Company shall reimburse the Insured for expenses, other than loss of earnings, incurred at the Company's request. The insured shall not, except at his own cost, voluntarily make any payment, assume any obligation or incur any expense other than for such immediate medical and surgical relief to others as shall be imperative at the time of accident.

5. Proof, Reports and Payment of Claim for Medical Payments.

The injured person or someone on his behalf shall, as soon as practicable after such request from the Company, furnish reasonably obtainable information pertaining to the accident and injury, and execute authorization to enable the Company to obtain medical reports and copies of records. The injured person shall submit to physical examination by physicians selected by the Company when and as often as the Company may reasonably require.

As soon as practicable after completion of the services or after the rendering of services which in cost equal or exceed the limit of liability for medical payments or after the expiration of one year from the date of the accident, whichever is the first, the injured person or someone on his behalf shall give to the Company written proof of claim under oath, stating the name and address of each person and organization which has rendered services, the nature and extent and the dates of rendition of such services, the itemized charges therefor and the amounts paid thereon. Upon the Company's request, the injured person or someone on his behalf shall cause to be given to the Company by each such person and organization written proof of claim under oath, stating the nature and extent and dates of rendition of such services, the itemized charges therefor and the payments received thereon.

The Company shall have the right to make payment at any time to the injured person or to any such person or organization on account of the services rendered, and a payment so made shall reduce to the extent thereof the amount payable hereunder to or for such injured person on account of such injury. Payment hereunder shall not constitute admission of liability of the insured or, except hereunder, of the Company.

6. Changes.

Notice to any agent or knowledge possessed by any agent or by any other person shall not effect a waiver or a change in any part of this policy or estop the Company from asserting any right under the terms of this policy; nor shall the terms of this policy be waived or changed, except by endorsement signed by the President or Secretary of the Company, issued to form a part of this policy.

7. Assignment.

No assignment of interest under this policy shall bind the Company until its consent is endorsed hereon; if, however, the named Insured shall die or be adjudged bankrupt or insolvent within the policy period, this policy, unless cancelled, shall, if written notice be given to the Company within thirty days after the date of such death or adjudication, cover (1) the named Insured's legal representative as the named Insured, and (2) subject otherwise to the provisions of Agreement III, any person having proper temporary custody of the aircraft, as an Insured, until the appointment and qualification of such legal representative, but in no event for a period of more than thirty days after the date of such death or adjudication.

8. Cancellation.

This policy may be canceled by the named Insured by mailing written notice to the Company stating when thereafter such cancellation shall be effective. This policy may be canceled by the Company by mailing written notice to the named Insured at the address shown in Item 1 of the declarations of this policy stating when not less than five days thereafter such cancellation shall be effective. The mailing of notice as aforesaid shall be sufficient proof of notice and the Insurance under this policy shall end on the effective date and hour of cancellation stated in the notice. Delivery of such written notice either by the named Insured or by the Company shall be equivalent to mailing.

If the named Insured cancels, earned premiums shall be computed in accordance with the customary short rate table. If the Company cancels, earned premiums shall be computed pro rata. Premium adjustment may be made at the time cancellation is effected and, if not then made, shall be made as soon as practicable after cancellation becomes effective. The Company's check or the check of its representative mailed or delivered as aforesaid shall be sufficient tender of any refund of premium due to the named Insured.

9. Action Against Company.

No action shall lie against the Company unless, as a condition precedent thereof, the Insured shall have fully complied with all of the terms of this policy, nor until the amount of the Insured's obligation to pay shall have been finally determined either by judgment against the Insured after actual trial or by written agreement of the Insured, the claimant and the Company.

Any person or his legal representative who has secured such judgment or written agreement shall thereafter be entitled to recover under the terms of this policy in the same manner and to the same extent as the Insured. Nothing contained in this policy shall give any person or organization any right to join the Company as a co-defendant in any action against the Insured to determine Insured's liability.

Bankruptcy or insolvency of the Insured or of the Insured's estate shall not relieve the Company of any of its obligations hereunder.

10. Other Insurance.

If the Insured has other insurance against such loss covered by this policy the Company shall not be liable under this policy for a greater proportion of such loss than the applicable limit of liability stated in the declarations bears to the total applicable limit of liability of all valid and collectible insurance against loss. However, the insurance under Insuring Agreement IV shall be excess insurance over any other valid and collectible insurance available to the Insured, either as an insured under a policy applicable with respect to the aircraft or otherwise, against such loss covered under either or both of said Insuring Agreements.

11. Subrogation.

In the event of any payment under this policy the Company shall be subrogated to all the Insured's rights of recovery therefor and the Insured shall execute all papers required and shall do everything that may be necessary to secure such rights.

12. Inspection.

Any duly authorized representative of the Company shall be permitted to inspect the aircraft and to examine the Insured's books and records relating thereto, at any time during the policy period and within one year after the final termination of this policy or until final settlement of all claims hereunder, whichever is later.

13. Declarations.

By acceptance of this policy the named Insured agrees that the statements in the declarations are his agreements and representations, that this policy is issued in reliance upon the truth of such representations, and that this policy embodies all agreements existing between himself and the Company or any of its agents relating to this insurance.

14. Terms of Policy Conformed to Statute.

Terms of this policy which are in conflict with the statutes of the state wherein this policy is issued are hereby amended to conform to such statutes.

In Witness Whereof, the Ohio Casualty Insurance Company has caused this Policy to be signed by its President and Secretary and countersigned on the declaration page by a duly authorized agent of the Company.

/s/ HOWARD HAWKER,
President.

/s/ MARTIN J. WYS,
Secretary.

AMERICAN AVIATION UNDERWRITERS,
By /s/ S. T. McNUS,
Underwriter.

Short Rate Table showing percentage of premium earned each month—Interim dates are computed in accordance customary short rate table:

Months subsequent to policy issuance

	1	2	3	4	5	6	7	8	9	10	11	12
Percentage of annual premium earned	20	30	40	50	60	70	75	80	85	90	95	100

Aviation Liability Policy

Number OL 5756

Issued to Harry Phipps dba Phipps Flying Service and/or
Coast Aero Sales, a California Corp.

Expires February 29, 1949

The Ohio Casualty Insurance Company

Hamilton, Ohio

Issued Through

American Aviation Underwriters

Elliott & Company

Insurance

Telephone Michigan 4971

448 So. Hill St. - Los Angeles 13

Please Read Your Policy

Aviation Form No. 5

No. 2

Liability

Reporting Form Endorsement

It is hereby understood and agreed that: This endorsement applies only to aircraft with three or more seats.

1. Automatic Attachment and Termination of Coverage:

The coverage provided under this policy shall automatically apply with respect to any "NC" certificated aircraft owned or operated by the Insured, from the time such aircraft comes into the possession of the Insured until such time as the aircraft leaves the possession of the Insured, providing such aircraft are reported to the American Aviation Underwriters, 60 Sansome Street, San Francisco 4, California within a period of fifteen days from the time said aircraft comes into the possession of the Insured. The Company shall not be liable for any claims with respect to aircraft which have not been reported as provided for.

2. Monthly Declarations:

The Insured undertakes to keep accurate records of all aircraft falling within the scope of this policy, showing in such records the make, year and type of aircraft, its CAA Certificate Number (NC), the total number of passenger seats, excluding the crew, and the periods of time during which such aircraft were at risk under this policy. The Insured further undertakes to send to the American Aviation Underwriters, monthly on or before the 15th

day of each month during the currency of this Policy, a declaration setting forth this data with respect to the said aircraft during the preceding calendar month.

3. Rates of Premium :

Premium shall thereupon be computed at the following rates:
Per Passenger Flying Hour

No.	Coverages	Limits of Liability	Rate
A	Bodily Injury (Excluding Passengers)		(1 pass.—\$0.15
B	Bodily Injury (Passengers)	\$10,000 per seat....	(2 pass.— .24
			(3 pass.— .33
C	Property Damage Liability		
D	Medical Payments		

4. Minimum/Deposit Premium :

The premium of \$100.00 for which this Policy has been written shall be the Minimum/Deposit Premium. This Minimum/Deposit Premium of \$100.00 shall be paid upon delivery of this Policy to the Insured, and shall be retained by the Company. The Insured shall then pay the actual premium earned at the Policy rate for each month and payment of such premium shall be made before the end of the succeeding month. At the expiration of the Policy, the Company shall return to the Insured the excess of any premium paid by the Insured above the actual premium earned at the rates set forth above, but in no event shall the actual premium earned and retained by the Company be less than the Minimum/Deposit Premium.

5. Cancellation :

In the event of cancellation of this Policy by the named Insured, the earned premium hereunder shall be the proper short rate percentage of the estimated annual premium. The said estimated annual premium shall be determined by dividing the actual premium developed at the Policy rates by the number of days the Policy was in force and multiplying the quotient by 365, but in no event shall the earned premium be less than \$100.00, Minimum/Deposit premium set forth above.

6. Audits :

The Company shall be permitted, at all reasonable times during the Policy Period and within one year after its final expiration, to examine the Insured's books and records so far as they relate to the determination of premium for this insurantee. In the event that such audit discloses underpayment of premium to the Company, the Insured agrees to pay the Company the amount of additional premium due forthwith. Similarly, if overpayment has been made to the Company, then the Company agrees to return the amount of such overpayment to the Insured forthwith.

7. Gross Weight Limitations:

It is part of the consideration of this policy, and the basis upon which the rate of premium is fixed, that no liability shall attach to this Company for any claim if at the time of any accident the gross weight of the aircraft exceeds the gross weight stipulated in the Civil Aeronautics Authority Airworthiness Certificate of such aircraft.

This endorsement is effective on February 29, 1948, at the same hour indicated in the Policy as the effective hour.

Nothing herein contained shall be held to vary, alter, waive or extend any of the Declarations, Insuring Agreements, Exclusions or Conditions of this Policy other than as above stated.

Attached to and forming part of Policy No. OL 5756 issued by Ohio Casualty Insurance to Harry Phipps dba Phipps Flying Service and/or Coast Sales of El Monte.

AMERICAN AVIATION UNDERWRITERS.

ELLIOTT & COMPANY,

Countersigned

By /s/ E. F. CAWFORD,
Authorized Agent.

It is hereby understood and agreed that the following aircraft are covered under this policy:

C.A.A.	Make	Model	Year	Pass. Capacity Excl. Crew	Premium
NC 29929	Wacs	UPF-7	1941	2-place	\$90.18
NC 43130	Taylorcraft	BC-1L-65	1946	2-place	90.18
NC 43131	Taylorcraft	BC-1L-65	1946	2-place	90.18
NC 1368K	Luscombe	8-A Std.	1946	2-place	90.18
NC 2899K	Luscombe	8-A Std.	1947	2-place	90.18
NC 2900K	Luscombe	8-A Std.	1947	2-place	90.18
NC 2153K	Luscombe	8-A Std.	1947	2-place	90.18
NC 2826K	Luscombe	8E Deluxe	1947	2-place	90.18
NC 2886K	Luscombe	8E Std.	1947	2-place	90.18
NC 98689	Piper	J-3-C-65	1946	2-place	90.18
NC 98767	Piper	J-3-C-65	1946	2-place	90.18
NC 6417H	Piper	J-3-C-65	1946	2-place	90.18
NC 6763H	Piper	J-3-C-65	1946	2-place	90.18
NC 3446K	Piper	J-3-C-65	1946	2-place	90.18
NC 4667M	Piper	PA-11	1947	2-place	90.18
NC 4905M	Piper	PA-11	1947	2-place	90.18
NC 1613E	Aeronea	7AC	1947	2-place	90.18
NC 2195E	Aeronea	7AC	1947	2-place	90.18
NC 2346E	Aeronea	7AC	1947	2-place	90.18
NC 2962E	Aeronea	7AC	1947	2-place	90.18
NC 8258K	Stinson	150	1946	4-place	76.68
NC 6034M	Stinson	165	1947	4-place	76.68
NC 6127M	Stinson	165	1947	4-place	76.68

Attached to and forming part of Policy No. OL 5756 Ohio Casualty Insurance Company.

Issued to: Harry Phipps dba Phipps Flying Service and/or Coast Aero Sales, a California corporation.

Dated: March 18, 1948.

Countersigned
By /s/ E. F. CAWFORD,
ELLIOTT & COMPANY,
Authorized Agent.

Admitted December 5, 1950.

Certificate

I hereby certify that I am a duly appointed, qualified and acting official court reporter of the United States District Court for the Southern District of California.

I further certify that the foregoing is a true and correct transcript of the proceedings had in the above entitled cause on the date or dates specified therein, and that said transcript is a true and correct transcription of my stenographic notes.

Dated at Los Angeles, California, this 30th day of January A.D., 1951.

/s/ VIRGINIA K. PICKERING,
Official Reporter.

[Endorsed]: Filed February 2, 1951.

[Title of District Court and Cause.]

CERTIFICATE OF CLERK

I, Edmund L. Smith, Clerk of the United States District Court for the Southern District of California, do hereby certify that the foregoing pages numbered from 1 to 41, inclusive, contain the original Complaint; Answer; Findings of Fact and Conclusions of Law; Judgment; Notice of Appeal; Request for Clerk's Transcript and Reporter's Transcript on Appeal and Designation of Record on Appeal which, together with Original Plaintiffs' Exhibits 1, 2 and 3 and original Reporter's transcript of Proceedings on December 5, 1950, transmitted herewith, constitute the record on appeal to the United States Court of Appeals for the Ninth Circuit.

I further certify that my fees for preparing and certifying the foregoing record amount to \$2.00 which sum has been paid to me by appellant.

Witness my hand and the seal of said District Court this 19th day of February A.D., 1950.

EDMUND L. SMITH,
Clerk.

[Seal] By /s/ THEODORE HOCKE,
Chief Deputy.

[Endorsed]: No. 12863. United States Court of Appeals for the Ninth Circuit. The Ohio Casualty Insurance Company, a corporation, Appellant, vs. Ruth M. Petro and John Preston Petro, an infant by Ruth M. Petro, his guardian ad litem, Appellees. Transcript of Record. Appeal from the United States District Court for the Southern District of California Central Division.

Filed February 20, 1951.

/s/ PAUL P. O'BRIEN,
Clerk of the United States Court of Appeals for the
Ninth Circuit.

In the United States Court of Appeals
for the Ninth Circuit
No. 12863

THE OHIO CASUALTY INSURANCE COM-
PANY, a Corporation,

Defendant and Appellant,

vs.

RUTH M. PETRO, et al.,

Plaintiffs and Respondents.

STATEMENT OF POINTS ON APPEAL, AND
DESIGNATION OF PARTS OF RECORD
TO BE PRINTED

To the Clerk of the Above-Entitled Court, to the
Plaintiffs and Respondents in the Above-En-
titled Action and to Their Attorneys, Messrs.
Lasher B. Gallagher and Bertrand Rhine:

You and Each of You Will Please Take Notice,
that the appellant, The Ohio Casualty Insurance
Company, a corporation, intends to rely on the fol-
lowing points on the appeal in the above-entitled
case:

1. The trial court erred in holding that the pol-
icy of insurance issued by appellant to Harry D.
Phipps covered the liability of Philip R. Brown for
damages arising out of an accident which occurred
while Philip R. Brown was operating an airplane
owned by Harry D. Phipps.

(a) At the time of said accident Brown was "a

student or renter pilot" and was excluded from coverage of said policy by the express terms of subdivision (f) of clause III of the Insuring Agreements.

(b) If Brown at the time of the accident was not "a student or renter pilot," then said policy did not cover said accident because the aircraft was not being used for a purpose included in Item 7 of the Declarations contained in said policy, to wit: "Private business and pleasure, passenger carrying for hire or reward, rental to others and student instruction."

Appellant hereby designates to be printed the complete record filed in the above-entitled court, including all of the proceedings and evidence in the action and the entire Reporter's Transcript of Proceedings.

Dated: April 17, 1951.

BETTS, ELY & LOOMIS,

By /s/ JOHN A. LOOMIS,
Attorneys for Appellant, The Ohio Casualty Insurance Company.

Affidavit of Service by Mail attached.

[Endorsed]: Filed April 19, 1951.

No. 12864

United States
Court of Appeals
For the Ninth Circuit.

C B S STEEL AND FORGE COMPANY, a
Corporation,

Appellant,

vs.

GORDON W. SHULTZ, ERNEST PUETZ, LEE
McCOY, HOWARD LANE and HAROLD W.
GENTIS,

Appellees.

Transcript of Record

Appeal from the United States District Court,
Southern District of California,
Central Division.

FILED
APR - 6 1951

PAUL P. O'BRIEN,

CLERK



No. 12864

United States
Court of Appeals
For the Ninth Circuit.

C B S STEEL AND FORGE COMPANY, a
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Appellant,

vs.

GORDON W. SHULTZ, ERNEST PUETZ, LEE
McCOY, HOWARD LANE and HAROLD W.
GENTIS,

Appellees.

Transcript of Record

Appeal from the United States District Court,
Southern District of California,
Central Division.



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[Clerk's Note: When deemed likely to be of an important nature, errors or doubtful matters appearing in the original certified record are printed literally in *italic*; and, likewise, cancelled matter appearing in the original certified record is printed and cancelled herein accordingly. When possible, an omission from the text is indicated by printing in *italic* the two words between which the omission seems to occur.]

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NAMES AND ADDRESSES OF ATTORNEYS

For Appellant:

RICHARD A. PERKINS,
608 South Hill St., Suite 1010,
Los Angeles 14, Calif.

For Appellees Shultz and Puetz:

LYLE W. RUCKER,
5410 Wilshire Blvd.,
Los Angeles 36, Calif.

For Appellee McCoy:

EDMUND I. READ,
742 Broad Avenue,
Wilmington, Calif.

For Appellees Lane and Gentis:

HERBERT R. LANDE,
413 West Seventh St.,
San Pedro, Calif.



In the District Court of the United States, Southern
District of California, Central Division

No. Civil 9763-PH

HOWARD LANE and HAROLD W. GENTIS,
Plaintiffs,

vs.

C. B. S. STEEL & FORGE COMPANY, a Cor-
poration; JOHN DOE; and JOHN DOE COM-
PANY, a Partnership.

Defendants.

COMPLAINT UNDER FAIR LABOR
STANDARD ACT OF 1938

Comes now the plaintiff, Howard Lane, and for
cause of action alleges:

I.

That the defendants are, and at all times men-
tioned herein were engaged in interstate commerce
and in the production of goods for interstate com-
merce by the production in the City of Los An-
geles, State of California, of steel forgings for use
in aeroplane and oil field equipment, which steel
forgings were used and sent in interstate commerce.

II.

That from on or about October 1, 1948, said
plaintiff was employed by the defendants in inter-
state commerce and in the production of goods for
interstate commerce as a blacksmith's helper [2*]

*Page numbering appearing at foot of page of original Certified
Transcript of Record.

and maintenance repairman at defendants' forge shop, being employed in the production of said steel forgings and the maintenance and repair of machines engaged in the production of said steel forgings.

III.

That during the time and while employed by the defendants as alleged hereinabove, the defendants employed said plaintiff for work weeks longer than 40 hours per week without paying said plaintiff compensation for the hours of his said employment in excess of 40 hours per week at the rate of one and one-half times the regular rate at which he was employed; that from on or about March 1, 1948, to on or about May 27, 1948, said plaintiff worked 28 hours overtime for which he was not so compensated; that said plaintiff does not know the exact hours per week during said time for which he was not so compensated, but that said information is within the knowledge of the defendants; that during said time plaintiff's regular rate of pay was \$1.50 per hour; that on or about May 24, 1948, plaintiff's compensation and regular rate of pay was changed to a monthly salary of \$350.00 for a 40 hour work week; that the regular hourly rate of pay thereupon became \$2.01 per hour; that from May 24, 1948, to and including September 29, 1948, plaintiff worked a total of 454 $\frac{3}{4}$ hours in excess of 40 hours per week during said period; that there is due and owing and unpaid from the defendants to the plaintiff as unpaid overtime compensation as aforesaid, the sum of \$1,434.07; that plaintiff has

demanded payment of the same from the defendants, and defendants have refused to pay the same, or any part thereof.

IV.

That there is due said plaintiff from the defendants the additional sum of \$1,434.07 as liquidated damages to said plaintiff by reason of the violation of the Fair Labor Standards Act as hereinabove alleged.

V.

That \$1,000.00 is a reasonable and fair attorney's fee for [3] plaintiff's attorney for his service to plaintiff rendered herein to be paid by the defendants.

For a Second Cause of Action, the plaintiff Harold W. Gentis alleges as follows:

I.

Plaintiff refers to and incorporates herein the allegations contained in Paragraph I of the First Cause of Action.

II.

That from on or about April 1, 1948, to on or about October 13, 1948, said plaintiff was employed by the defendants in interstate commerce and in the production of goods for interstate commerce as a maintenance repairman at defendants' forge shop to maintain and repair the machines and equipment used by the defendants in the aforesaid construction and making of said steel forgings.

III.

That during the time and while employed by the defendants, as alleged hereinabove, the said defendants employed the plaintiff for work weeks longer than 40 hours per week without paying the plaintiff compensation for the hours of his said employment in excess of 40 hours per week at the rate of one and one-half times the regular rate at which he was employed; that from April 1, 1948, to May 31, 1948, plaintiff worked 30 hours in excess of the said 40 hours per week; that the exact weeks during which plaintiff worked said additional hours are not known to plaintiff, but is known to the defendants; that from May 14, 1948, to and including October 13, 1948, plaintiff worked 620 hours over 40 hours per week during said time; that during the aforesaid time plaintiff was employed at the rate of \$450.00 per month for a 40 hour work week; that plaintiff's regular rate of pay was \$2.60 per hour; that there is due and owing and unpaid from the defendant to the plaintiff as unpaid overtime compensation [4] as aforesaid, the sum of \$2,557.60; that plaintiff has demanded payment of the same from the defendants, and defendants have refused to pay the same, or any part thereof.

IV.

That there is due plaintiff from the defendants the additional sum of \$2,557.60 as liquidated damages to said plaintiff by reason of the violation of the Fair Labor Standard Act as hereinabove alleged.

V.

That \$750.00 is a reasonable and fair attorney's fee for plaintiff's attorney for his services to plaintiff rendered herein to be paid by the defendants.

Wherefore, plaintiff Howard Lane prays for judgment against the defendants, and each of them, for the sum of \$3,868.14; and plaintiff Harold W. Gentis prays for judgment against the defendants, and each of them, for the sum of \$5,865.20; and for costs of suit herein.

/s/ HERBERT R. LANDE,
Attorney for Plaintiffs.

State of California,
County of Los Angeles—ss.

Howard Lane being duly sworn deposes and says: That he is one of the plaintiffs in the above-entitled action; that he has read the foregoing Complaint and knows the contents thereof, and that the same is true of his own knowledge, except as to the matters which are therein stated upon his information or belief, and as to those matters he believes it to be true.

/s/ HOWARD LANE.

Subscribed and sworn to before me this 25th day of May, 1949.

[Seal] /s/ GLADYS DOWNING,
Notary Public in and for
Said County and State.

[Endorsed]: Filed May 31, 1949. [5]

[Title of District Court and Cause.]

ANSWER OF DEFENDANT
C B S STEEL AND FORGE

For answer to plaintiffs' First Cause of Action (that of plaintiff Howard Lane) defendant C B S Steel and Forge, a corporation, alleges:

First Defense

Plaintiffs' First Cause of Action fails to state a claim upon which relief can be granted against this defendant.

Second Defense

This defendant denies that it is or ever has been engaged in interstate commerce or in the production of goods for interstate commerce; admits that it is and has been engaged in the production of steel forgings, some of which are used in airplane and oil field equipment; alleges that it is without knowledge or information sufficient to form a belief as to whether any of said steel forgings has been used or sent in interstate commerce; and denies each and every other allegation contained in plaintiff's First Cause [6] of Action.

Third Defense

If this defendant ever failed to pay plaintiff Howard Lane promptly when due any amount of money owing said plaintiff under the Fair Labor Standards Act of 1938, as amended, any such amount was fully paid before the commencement of this action, together with an additional amount

more than sufficient to satisfy any obligation this defendant ever might have had to pay liquidated damages and attorney fees.

Fourth Defense

Plaintiff Howard Lane is estopped to assert any claim or demand against this defendant under the Fair Labor Standards Act of 1938, as amended, for the reason that while employed by this defendant said plaintiff agreed to work only 40 hours weekly and represented to this defendant that he worked only 40 hours weekly, and he concealed from this defendant until long after the termination of his employment that he had or claimed to have anything due him from this defendant. This defendant relied on said representations to its detriment by continuing his employment at high wages, by permitting him to work without close supervision, to loiter on its premises for his own personal convenience, and to enter and leave its premises freely, and by paying him severance pay at the termination of his employment.

Fifth Defense

If the activities for which plaintiff Howard Lane seeks to recover ever took place they were activities which were preliminary or postliminary to the principal activity or activities which said plaintiff was employed to perform and were either prior to the time on any particular work day at which said plaintiff commenced, or subsequent to the time on any work day at which he ceased, such principal

activities. There has never been any contract, custom, or practice in effect at the place where said plaintiff was employed whereby any of such preliminary or postliminary activities was compensable. By virtue of Section 4 of the Portal to Portal Act of 1947 this defendant is not subject to any liability or punishment on account of any failure to pay overtime compensation for or on account of any such activities. [7]

Sixth Defense

Any act or omission of this defendant which gave rise to this action on the part of plaintiff Howard Lane was in good faith and this defendant had reasonable grounds for believing that said act or admission was not a violation of the Fair Labor Standards Act of 1938, as amended, viz.: while employed by this defendant said plaintiff agreed to work only 40 hours weekly and represented to this defendant that he worked only 40 hours weekly; and he concealed from this defendant until long after the termination of his employment that he had or claimed to have anything due him from this defendant.

And for answer to plaintiff's Second Cause of Action (that of Harold W. Gentis) this defendant alleges:

First Defense

Plaintiffs' Second Cause of Action fails to state a claim upon which relief can be granted against this defendant.

Second Defense

This defendant denies that it is or ever has been engaged in interstate commerce or in the production of goods for interstate commerce; admits that it is and has been engaged in the production of steel forgings, some of which are used in airplane and oil field equipment; alleges that it is without knowledge or information sufficient to form a belief as to whether any of said steel forgings has been used or sent in interstate commerce; admits that from on or about April 1, 1948, to on or about October 13, 1948, said plaintiff was employed by this defendant; and denies each and every other allegation contained in plaintiffs' Second Cause of Action.

Third Defense

If this defendant ever failed to pay plaintiff Harold W. Gentis promptly when due any amount of money owing said plaintiff under the Fair Labor Standards Act of 1938, as amended, any such amount was fully paid before the commencement of this action, together with an additional amount more than sufficient to satisfy any obligation this defendant ever might have had to pay liquidated damages and attorney fees. [8]

Fourth Defense

Plaintiff Harold W. Gentis is estopped to assert any claim or demand against this defendant under the Fair Labor Standards Act of 1938, as amended, for the reason that while employed by this defendant said plaintiff agreed to work only 40 hours

weekly and represented to this defendant that he worked only 40 hours weekly, and he concealed from this defendant until long after the termination of his employment that he had or claimed to have anything due him from this defendant. This defendant relied on said representations to its detriment by continuing his employment at high wages by permitting him to work without close supervision, to loiter on its premises for his own personal convenience, and to enter and leave its premises freely, and by paying him severance pay at the termination of his employment.

Fifth Defense

If the activities for which plaintiff Harold W. Gentis seeks to recover ever took place they were activities which were preliminary or postliminary to the principal activity or activities which said plaintiff was employed to perform and were either prior to the time on any particular work day at which said plaintiff commenced, or subsequent to the time on any work day at which he ceased, such principal activities. There has never been any contract, custom, or practice in effect at the place where said plaintiff was employed whereby any of such preliminary or postliminary activities was compensable. By virtue of Section 4 of the Portal to Portal Act of 1947 this defendant is not subject to any liability or punishment on account of any failure to pay overtime compensation for or on account of any such activities.

Sixth Defense

Any act or omission of this defendant which gave rise to this action on the part of plaintiff Harold W. Gentis was in good faith and this defendant had reasonable grounds for believing that said act or omission was not a violation of the Fair Labor Standards Act of 1938, as amended, viz.: While employed by this defendant said plaintiff agreed to work only 40 hours weekly and represented to this defendant that he worked only 40 hours weekly, [9] and he concealed from this defendant until long after the termination of his employment that he had or claimed to have anything due him from this defendant.

Wherefore, this defendant prays that plaintiffs take nothing by their complaint and that this defendant recover its costs.

/s/ RICHARD A. PERKINS,
Attorney for Defendant
C B S Steel and Forge.

Affidavit of Service by Mail attached.

[Endorsed]: Filed June 28, 1949. [10]

[Title of District Court and Cause.]

MOTION FOR LEAVE TO BRING IN
THIRD PARTIES DEFENDANT

Defendant C B S Steel and Forge moves for leave to make Gordon W. Shultz, Ernest Puetz, and

Lee McCoy parties to this action and that there be served upon them summons and third-party complaint as set forth in Exhibit A hereto attached.

/s/ RICHARD A. PERKINS,
Attorney for Defendant
C B S Steel and Forge. [15]

EXHIBIT A

In the United States District Court for the
Southern District of California, Central Division

Civil Action No. 9763—PH

HOWARD LANE and HAROLD W. GENTIS,
Plaintiffs,

vs.

C B S STEEL AND FORGE, a Corporation,
Defendant and Third-Party Plaintiff,

vs.

GORDON W. SHULTZ, ERNEST PUETZ and
LEE McCOY,

Third-Party Defendants.

SUMMONS

To the Above-Named Third-Party Defendants:

You are hereby summoned and required to serve upon Herbert R. Lande, Esquire, plaintiffs' attorney whose address is 413 West 7th Street, San Pedro, California, and upon Richard A. Perkins, Esquire, who is attorney for C B S Steel and

Forge, a corporation, defendant and third-party plaintiff, and whose address is 608 South Hill Street, Suite 1010, Los Angeles 14, California, an answer to the third-party complaint which is herewith served upon you and an answer to the complaint of the plaintiff, a copy of which is served upon you, within 20 days after the service of this summons upon you exclusive of the day of service. If you fail to do so, judgment by default will be taken against you for the relief demanded in the third-party complaint.

Dated:

[Seal] EDMUND L. SMITH,
Clerk of Court. [16]

[Title of District Court and Cause.]

THIRD PARTY COMPLAINT

I.

Plaintiffs Howard Lane and Harold W. Gentis have filed against defendant C B S Steel and Forge, a corporation, designated by the name of C B S Steel and Forge Company, and certain fictitiously named defendants, a complaint, a copy of which is hereto attached.

II.

By said complaint said Howard Lane and Harold W. Gentis seek to recover over-time compensation, liquidated damages, and attorney fees from defendant C B S Steel and Forge upon the claim that

the same accrued to them from this defendant during their employment by this defendant from on or about April 1 to on or about November 1, 1948.

III.

Defendant C B S Steel and Forge has answered said complaint and denied that anything is due or owing to either said Howard Lane or said [17] Harold W. Gentis from defendant C B S Steel and Forge, but in view of the hazards and uncertainties of litigation it is remotely possible that either said Howard Lane or said Harold W. Gentis or both of them might recover judgment against defendant C B S Steel and Forge for some part of their claims.

IV.

If defendant C B S Steel and Forge is liable to said Howard Lane or said Harold W. Gentis in any amount whatever it is because of the negligence or other misconduct of Gordon W. Shultz, Ernest Puetz, and Lee McCoy, hereinafter collectively referred to as third parties defendant, all of whom were officers or agents of defendant C B S Steel and Forge during the period within which any such liability of defendant C B S Steel and Forge was incurred. During said period Gordon W. Shultz was president, Ernest Puetz was comptroller, and Lee McCoy was forge shop superintendent of defendant C B S Steel and Forge, and it was their duty to cause defendant C B S Steel and Forge to keep complete and accurate records of over-time

worked and to pay employees promptly when due any over-time compensation owing them.

Wherefore defendant C B S Steel and Forge demands judgment against third party defendants Gordon W. Shultz, Ernest Puetz, Lee McCoy, and each of them for all sums that may be adjudged against defendant C B S Steel and Forge in favor of plaintiffs Howard Lane and Harold W. Gentis.

/s/ RICHARD A. PERKINS,
Attorney for C B S Steel and Forge, Third Party
Plaintiff.

Affidavit of Service by Mail attached.

[Endorsed]: Filed July 8, 1950. [18]

[Title of District Court and Cause.]

ORDER GRANTING LEAVE TO DEFENDANT
C B S STEEL AND FORGE AS THIRD
PARTY PLAINTIFF TO BRING IN GOR-
DON W. SHULTZ, ERNEST PUETZ AND
LEE McCOY AS THIRD PARTIES DE-
FENDANT

The motion of defendant C B S Steel and Forge for leave to bring in Gordon W. Shultz, Ernest Puetz and Lee McCoy as third parties defendant to this action coming on regularly to be heard this 17th day of July, 1950, there being no opposition thereto, and the Court being fully advised in the premises, It Is Ordered that said motion be and the same hereby is granted, and that there be served upon said third parties defendant summons and third party complaint in the form of Exhibit A attached to the notice of said motion.

Dated: July 17, 1950.

/s/ PEIRSON M. HALL,

United States District Judge.

Approved as to Form:

/s/ HERBERT R. LANDE,

Attorney for Plaintiffs.

[Endorsed]: Filed July 24, 1950. [20]

In the United States District Court for the
Southern District of California, Central Division

Civil Action No. 9763—PH

HOWARD LANE and HAROLD W. GENTIS,
Plaintiffs,

vs.

C B S STEEL AND FORGE, a Corporation,
Defendant and Third Party Plaintiff,

vs.

GORDON W. SHULTZ, ERNEST PUETZ, and
LEE McCOY,

Third Parties Defendant.

THIRD PARTY COMPLAINT

I.

Plaintiffs Howard Lane and Harold W. Gentis have filed against defendant C B S Steel and Forge, a corporation, designated by the name of C B S Steel and Forge Company, and certain fictitiously named defendants, a complaint, a copy of which is hereto attached.

II.

By said complaint said Howard Lane and Harold W. Gentis seek to recover over-time compensation, liquidated damages, and attorney fees from defendant C B S Steel and Forge upon the claim that the same accrued to them from this defendant during

their employment by this defendant from on or about April 1 to on or about November 1, 1948.

III.

Defendant C B S Steel and Forge has answered said complaint and denied that anything is due or owing to either said Howard Lane or said [21] Harold W. Gentis from defendant C B S Steel and Forge, but in view of the hazards and uncertainties of litigation it is remotely possible that either said Howard Lane or said Harold W. Gentis or both of them might recover judgment against defendant C B S Steel and Forge for some part of their claims.

IV.

If defendant C B S Steel and Forge is liable to said Howard Lane or said Harold W. Gentis in any amount whatever it is because of the negligence or other misconduct of Gordon W. Shultz, Ernest Puetz, and Lee McCoy, hereinafter collectively referred to as third parties defendant, all of whom were officers or agents of defendant C B S Steel and Forge during the period within which any such liability of defendant C B S Steel and Forge was incurred. During said period Gordon W. Shultz was president, Ernest Puetz was comptroller, and Lee McCoy was forge shop superintendent of defendant C B S Steel and Forge, and it was their duty to cause defendant C B S Steel and Forge to keep complete and accurate records of over-time worked and to pay employees promptly when due any over-time compensation owing them.

Wherefore defendant C B S Steel and Forge demands judgment against third party defendants Gordon W. Shultz, Ernest Puetz, Lee McCoy, and each of them for all sums that may be adjudged against defendant C B S Steel and Forge in favor of plaintiffs Howard Lane and Harold W. Gentis.

/s/ RICHARD A. PERKINS,
Attorney for C B S Steel and Forge, Thirty Party
Plaintiffs. [22]

[Title of District Court and Cause.]

COMPLAINT UNDER FAIR LABOR
STANDARDS ACT OF 1938

Comes now the plaintiff, Howard Lane, and for cause of action alleges:

I.

That the defendants are, and at all times mentioned herein were engaged in interstate commerce and in the production of goods for interstate commerce by the production in the City of Los Angeles, State of California, of steel forgings for use in aeroplane and oil field equipment, which steel forgings were used and sent in interstate commerce.

II.

That from on or about October 1, 1948, said plaintiff was employed by the defendants in interstate commerce and in the production of goods for inter-

state commerce as a blacksmith's helper and [23] maintenance repairman at defendants' forge shop, being employed in the production of said steel forgings and the maintenance and repair of machines engaged in the production of said steel forgings.

III.

That during the time and while employed by the defendants as alleged hereinabove, the defendants employed said plaintiff for work weeks longer than 40 hours per week without paying said plaintiff compensation for the hours of his said employment in excess of 40 hours per week at the rate of one and one-half times the regular rate at which he was employed; that from on or about March 1, 1948, to on or about May 27, 1948, said plaintiff worked 28 hours overtime for which he was not so compensated; that said plaintiff does not know the exact hours per week during said time for which he was not so compensated, but that said information is within the knowledge of the defendants; that during said time plaintiff's regular rate of pay was \$1.50 per hour; that on or about May 24, 1948, plaintiff's compensation and regular rate of pay was changed to a monthly salary of \$350.00 for a 40 hour work week; that the regular hourly rate of pay thereupon became \$2.01 per hour; that from May 24, 1948, to and including September 29, 1948, plaintiff worked a total of 454 $\frac{3}{4}$ hours in excess of 40 hours per week during said period; that there is due and owing and unpaid from the defendants to the plaintiff as unpaid overtime compensation

as aforesaid, the sum of \$1,434.07; that plaintiff has demanded payment of the same from the defendants, and defendants have refused to pay the same, or any part thereof.

IV.

That there is due said plaintiff from the defendants the additional sum of \$1,434.07 as liquidated damages to said plaintiff by reason of the violation of the Fair Labor Standards Act as hereinabove alleged.

V.

That \$1,000.00 is a reasonable and fair attorney's fee for [24] plaintiff's attorney for his service to plaintiff rendered herein to be paid by the defendants.

For a Second Cause of Action, the plaintiff Howard W. Gentis alleges as follows:

I.

Plaintiff refers to and incorporates herein the allegations contained in Paragraph I of the First Cause of Action.

II.

That from on or about April 1, 1948, to on or about October 13, 1948, said plaintiff was employed by the defendants in interstate commerce and in the production of goods for interstate commerce as a maintenance repairman at defendants' forge shop to maintain and repair the machines and equipment used by the defendants in the aforesaid construction and making of said steel forgings.

III.

That during the time and while employed by the defendants, as alleged hereinabove, the said defendants employed the plaintiff for work weeks longer than 40 hours per week without paying the plaintiff compensation for the hours of his said employment in excess of 40 hours per week at the rate of one and one-half times the regular rate at which he was employed; that from April 1, 1948, to May 31, 1948, plaintiff worked 30 hours in excess of the said 40 hours per week; that the exact weeks during which plaintiff worked said additional hours are not known to plaintiff, but is known to the defendants; that from May 14, 1948, to and including October 13, 1948, plaintiff worked 620 hours over 40 hours per week during said time; that during the aforesaid time plaintiff was employed at the rate of \$450.00 per month for a 40 hour work week; that plaintiff's regular rate of pay was \$2.60 per hour; that there is due and owing and unpaid from the defendant to the plaintiff as unpaid overtime compensation [25] as aforesaid, the sum of \$2,557.60; that plaintiff has demanded payment of the same from the defendants, and defendants have refused to pay the same, or any part thereof.

IV.

That there is due plaintiff from the defendants the additional sum of \$2,557.60 as liquidated damages to said plaintiff by reason of the violation of the Fair Labor Standards Act as hereinabove alleged.

V.

That \$750.00 is a reasonable and fair attorney's fee for plaintiff's attorney for his service to plaintiff rendered herein to be paid by the defendants.

Wherefore, plaintiff Howard Lane prays for judgment against the defendants, and each of them, for the sum of \$3,868.14; and plaintiff Harold W. Gentis prays for judgment against the defendants, and each of them, for the sum of \$5,865.20; and for costs of suit herein.

/s/ HERBERT R. LANDE,
Attorney for Plaintiffs.

State of California,
County of Los Angeles—ss.

Howard Lane being duly sworn deposes and says: That he is one of the plaintiffs in the above-entitled action; that he has read the foregoing Complaint and knows the contents thereof, and that the same is true of his own knowledge, except as to the matters which are therein stated upon his information or belief, and as to those matters he believes it to be true.

/s/ HOWARD LANE.

Subscribed and sworn to before me this 25th day of May, 1949.

GLADYS DOWNING,
Notary Public in and for
Said County and State.

[Endorsed]: Filed July 24, 1950. [26]

[Title of District Court and Cause.]

CIVIL ACTION—NOTICE OF MOTION FOR
SUMMARY JUDGMENT UNDER RULE
12 (b) AND RULE 56b AND 56c

To the Plaintiff, by and Through Their Attorney
of Record, Herbert R. Lande, Esq.; and to
Third Party Plaintiff, by and Through Its At-
torney of Record, Richard A. Perkins, Esq.:

You, and Each of You, Will Please Take Notice,
that the Gordon W. Shultz and Ernest Puetz, Third
Parties Defendant, by and through their attorney
of record, Lyle W. Rucker, Esq., will move the
within-entitled court, before the Honorable Peirson
M. Hall, Judge Presiding, on September 18, 1950,
Monday, at the hour of 10 o'clock a.m. of said day,
or as soon thereafter as counsel can be heard, for
Summary Judgment, and failing in that respect,
for an Order to the effect that Third Party Com-
plaint fails to state a claim as against Third Parties
Defendant, upon which relief can be granted. [27]

Said Motion will be based upon the Complaint,
Third Party Complaint, and records and files of the
within-entitled action, on file in the within-entitled
matter.

/s/ LYLE W. RUCKER,

Attorney for Third Parties Defendant, Gordon W.
Shultz and Ernest Puetz.

Dated: August 14, 1950. [28]

[Title of District Court and Cause.]

CIVIL ACTION—MOTION UNDER FEDERAL
RULES SEC. 12 (b) AND RULE 56b AND
56c FOR DISMISSAL OF ACTION AND
FOR SUMMARY JUDGMENT

To the Honorable District Court of the United
States, for the Southern District of California,
Central Division:

The undersigned, Gordon W. Shultz and Ernest
Puetz, Third Parties Defendant, do hereby move
the above-entitled Court, the Honorable Peirson
Hall, Judge Presiding, for an Order of said court,
Dismissing Third Party Plaintiff's Third Party
Complaint, and for Summary Judgment in favor of
Third Parties Defendant, as against said Third
Party Plaintiff on the following grounds, to wit:
That the within-entitled Court is without jurisdic-
tion over the Third Parties Defendant, Gordon W.
Shultz and Ernest Puetz; That said Third Party
Complaint fails to state a claim upon which relief
can be granted as against said Third Party De-
fendant, and that, said Third Parties Defendant are
entitled to Summary [29] Judgment as against said
Third Party Plaintiff.

That said Motion is based upon the Complaint

and the Third Party Complaint on file herein, together with the records and files of the within action.

/s/ LYLE W. RUCKER,
Attorney for Third Parties Defendant, Gordon W.
Shultz and Ernest Puetz.

Affidavit of Service by Mail attached.

[Endorsed]: Filed August 17, 1950. [30]

[Title of District Court and Cause.]

NOTICE OF MOTION

To: C B S Steel and Forge, Defendant and Third
Party Plaintiff, and

To: Richard A. Perkins, Its Attorney:

You will please take notice that on the 18th day of September, 1950, at the hour of 10:00 a.m., at the courthouse in the Federal Building, in the City of Los Angeles, County of Los Angeles, State of California, in the Motion Department, the third party defendant, Lee McCoy will move this court for an order dismissing the third party complaint as to this third party defendant and for summary judgment in accordance with the motion on file herein, a copy of which is annexed hereto.

Said motion will be based on this notice and upon

all the pleadings, papers and proceedings heretofore had and on file [32] herein.

Dated this 18th day of August, 1950.

/s/ EDMUND I. READ,

Attorney for Third Party

Defendant, Lee McCoy. [33]

[Title of District Court and Cause.]

MOTION

To the Honorable District Court of the United States, for the Southern District of California, Central Division:

Comes now the third party defendant, Lee McCoy, and severing from all other defendants, appears by his attorney, Edmund I. Read, for the purpose of this motion only and moves this court for an order dismissing the third party complaint on file herein as to this defendant and for summary judgment on the ground that no claim has been set forth in said third party complaint whereby this defendant is liable, and for all proper relief.

/s/ EDMUND I. READ,

Attorney for Third Party

Defendant, Lee McCoy.

Affidavit of Service by Mail attached.

[Endorsed]: Filed August 22, 1950. [34]

[Title of District Court and Cause.]

ORDER DISMISSING THIRD PARTY
COMPLAINT

Third Parties Defendant's motions for an order decreeing that Third Party Plaintiff's complaint fails to state a claim upon which relief can be granted having come on for hearing before Honorable Peirson M. Hall, Judge Presiding, in Department 1 of the above-entitled court, on the 2nd day of October, 1950, Lyle W. Rucker, Esq., appearing as attorney for third parties defendant Gordon W. Shultz and Ernest Puetz; Edmund I. Read, Esq., appearing as attorney for third party defendant Lee McCoy, and Richard A. Perkins, Esq., appearing as attorney for third party plaintiff C B S Steel and Forge, a corporation, and argument having been made in support and in defense of said motion by counsel and the cause having been duly submitted to the Court for decision:

The Court thereupon made its Order dismissing said [37] third party complaint as against third parties defendants Gordon W. Shultz, Ernest Puetz and Lee McCoy.

Let Judgment be Entered Accordingly.

/s/ PEIRSON M. HALL,
Judge.

Dated: October 5th, 1950.

[Endorsed]: Filed October 5, 1950. [38]

In the United States District Court for the Southern
District of California, Central Division

Civil Action No. 9763—PH

HOWARD LANE and HAROLD W. GENTIS,
Plaintiffs,

vs.

C B S STEEL AND FORGE, a Corporation,
Defendant and Third Party Plaintiff,

vs.

GORDON W. SHULTZ, ERNEST PUETZ and
LEE McCOY,

Third Parties Defendant.

JUDGMENT OF DISMISSAL, THIRD
PARTY COMPLAINT

Third Parties Defendant's motions for an order decreeing that Third Party Plaintiff's complaint fails to state a claim upon which relief can be granted having come on for hearing before Honorable Peirson M. Hall, Judge Presiding, in Department 1 of the above-entitled Court, on the 2nd day of October, 1950; Lyle W. Rucker, Esq., appearing as attorney for third parties defendant Gordon W. Shultz and Ernest Puetz; Edmund I. Read, Esq., appearing as attorney for third party defendant Lee McCoy, and Richard A. Perkins, Esq., appearing as attorney for third party plaintiff C B S Steel and Forge, a corporation, and argument having

been made in support and in defense of said motion by counsel and the cause having been duly submitted to the Court and considered by it; and the court having made its Order Dismissing said [39] third party complaint and directing that Judgment be entered dismissing said third party complaint;

Now Therefore, it is hereby Ordered and Decreed that third party plaintiff's Third Party Complaint is hereby dismissed as against third parties defendant Gordon W. Shultz, Ernest Puetz and Lee McCoy.

/s/ PEIRSON M. HALL.

Dated: October 5th, 1950.

Dismissed October 6, 1950.

Affidavit of Service by Mail attached.

[Endorsed]: Filed October 5, 1950. [40]

[Title of District Court and Cause.]

NOTICE OF MOTION TO VACATE ORDER
DISMISSING THIRD PARTY COM-
PLAINT, ETC.

To Third Party Defendants and their Attorneys:

You and each of you will please take notice that the undersigned counsel for C B S Steel and Forge, defendant and third party plaintiff, will move the above-entitled Court in the courtroom of the Honorable Peirson M. Hall, on October 16, 1950, at 10:00

a.m., or as soon thereafter as counsel may be heard, for an order vacating the order of dismissal of the third party complaint, denying the motions directed by third party defendants against said third party complaint, and directing the third party defendants to answer the same. Said motion will be made upon the ground that the Court has jurisdiction of the subject matter of the third party complaint and of the persons of the third party defendants, and that the interests of justice require the claim of third party plaintiff against third party defendants to be adjudicated in this proceeding. Said motion will be based upon the minutes of the Court, the entire record in [42] this action, and the annexed points and authorities.

Dated: October 6, 1950.

/s/ RICHARD A. PERKINS,
Attorney for Third Party
Plaintiff.

[Endorsed]: Filed October 10, 1950. [43]

[Title of District Court and Cause.]

STATEMENT OF OBJECTIONS TO PRO-
POSED ORDER AND JUDGMENT DIS-
MISSING THIRD PARTY COMPLAINT

C B S Steel and Forge, a corporation, defendant and third party plaintiff, hereby states its objections to the proposed order and judgment dismissing

third party complaint which were received by the undersigned counsel at 9:00 a.m., October 5, 1950:

1. Both said proposed order and said proposed judgment would place the ground of dismissal upon a finding that the third party complaint failed to state a claim upon which relief could be granted, i.e., that it was demurrable for failure to state a cause of action. The colloquy between Court and counsel at the argument on the motion October 2nd indicated that the Court's dismissal of the third party complaint would be upon other grounds, i.e., lack of jurisdiction over the subject matter or lack of jurisdiction over the persons of the third party defendants. The proposed order and judgment as presently drawn, therefore, incorrectly reflect the Court's decision. [44]

2. It is important to the third party plaintiff and for the preservation of its rights that the order and judgment accurately reflect the grounds of the Court's decision. The third party plaintiff is presently considering the advisability of an appeal from the order and judgment of dismissal, believing that same would be erroneous. If the order and judgment are made in the form proposed, it may be difficult or impossible for third party plaintiff to present the jurisdictional point to the Reviewing Court, and the third party defendants might urge affirmance on some ground not contemplated by the Trial Court when it ordered dismissal of the third party complaint. For example, it might be urged on appeal that the third party complaint was de-

fective in some respect which could have been cured by amendment, whereas the grounds stated by the Court at the argument of the motion were such that it appeared useless to ask leave to amend.

3. Accordingly, third party plaintiff respectfully requests that if the third party complaint is to be dismissed over its objection, the order and judgment of dismissal be expressly placed upon the ground of want of jurisdiction so as to speak the truth and to permit third party plaintiff to present the question to an Appellate Court.

Dated: October 6, 1950.

/s/ RICHARD A. PERKINS,
Attorney for Third Party
Plaintiff.

Affidavit of Service by Mail attached.

[Endorsed]: Filed October 10, 1950. [45]

At a stated term, to wit: The September Term, A.D. 1950, of the District Court of the United States of America, within and for the Central Division of the Southern District of California, held at the Court Room thereof, in the City of Los Angeles on Tuesday, the 14th day of November in the year of our Lord one thousand nine hundred and fifty.

Present: The Honorable Peirson M. Hall,
District Judge.

[Title of Cause.]

The objections of the defendant and third-party plaintiff to the judgment are overruled, and its motion to vacate the judgment is denied. [47]

[Title of District Court and Cause.]

NOTICE OF APPEAL TO COURT OF APPEALS UNDER RULE 73 (B)

Notice is hereby given that C B S Steel and Forge, a corporation, defendant and third party plaintiff above named, hereby appeals to the United States Court of Appeals for the Ninth Circuit from the final judgment entered in this action on October 6, 1950, dismissing the third party complaint as against third parties defendant Gordon W. Shultz, Ernest Puetz, and Lee McCoy, from the order dismissing said third party complaint, and from the minute order of November 13, 1950, deny-

ing the motion of defendant and third party plaintiff to vacate said judgment of dismissal and overruling the objections of defendant and third party plaintiff to the form of the order and judgment of dismissal.

/s/ RICHARD A. PERKINS,
Attorney for Appellant.

[Endorsed]: Filed December 13, 1950. [48]

[Title of District Court and Cause.]

AFFIDAVIT FOR EXTENSION OF TIME

State of California,
County of Los Angeles—ss.

Richard A. Perkins, being sworn, says:

I am counsel for C B S Steel and Forge, a corporation, defendant, third party plaintiff, and appellant in this action. Notice of appeal from a judgment dismissing the third party complaint, etc., was filed December 13, 1950, and the time for filing the record on appeal expires January 22, 1951, pursuant to Rule 73 (g) of the Rules Governing Civil Appeals.

Counsel for appellant has been prevented from attending to the perfection of said appeal by reason of his necessary participation in emergency litigation, viz.: Mitchell, et al., vs. County of Los Angeles, et al., number 581483 in the Superior Court, Los

Angeles County. On behalf of appellant [52] affiant respectfully requests that the time for filing and docketing the record on appeal in this cause be extended to February 21, 1951.

/s/ RICHARD A. PERKINS.

Subscribed and sworn to before me this 16th day of January, 1951.

[Seal] /s/ VIRGINIA W. STOKES,
Notary Public in and for
Said County and State.

Good cause therefor appearing, the time for filing and docketing the record on appeal is hereby extended to and including February 21, 1951.

January 22, 1951.

/s/ PEIRSON M. HALL,
United States District Court
Judge.

[Endorsed]: Filed January 22, 1951. [53]

[Title of District Court and Cause.]

CERTIFICATE OF CLERK

I, Edmund L. Smith, Clerk of the United States District Court for the Southern District of California, do hereby certify that the foregoing pages numbered from 1 to 56, inclusive, contain the original Complaint; Answer; Notice of and Motion for

Leave to Bring in Third Parties Defendant; Order Granting Leave to Bring in Third Parties Defendant; Third Party Complaint; Two Notice of and Motions to Dismiss, etc.; Order Dismissing Third Party Complaint; Judgment of Dismissal of Third Party Complaint; Notice of Motion to Vacate Order Dismissing Third Party Complaint; Statement of Objections to Proposed Order and Judgment Dismissing Third Party Complaint; Notice of Appeal; Affidavit of Service; Affidavit and Order Extending Time to Docket Appeal and Designation of Record on Appeal together with a full, true and correct copy of minute order entered November 14, 1950, which constitute the record on appeal to the United States Court of Appeals for the Ninth Circuit.

I further certify that my fees for preparing and certifying the foregoing record amount to \$2.00 which sum has been paid to me by appellant.

Witness my hand and the seal of said District Court this 19th day of February, A.D. 1951.

[Seal]

EDMUND L. SMITH,
Clerk.

By /s/ THEODORE HOCKE,
Chief Deputy.

[Endorsed]: No. 12864. United States Court of Appeals for the Ninth Circuit. C B S Steel and Forge Company, a corporation, Appellant, vs. Gordon W. Shultz, Ernest Puetz, Lee McCoy, Howard Lane and Harold W. Gentis, Appellees. Transcript of Record. Appeal from the United States District Court for the Southern District of California, Central Division.

Filed February 20, 1951.

/s/ PAUL P. O'BRIEN,
Clerk of the United States Court of Appeals for the
Ninth Circuit.

In the United States Court of Appeals
Ninth Circuit

Civil Action No. 12864

C B S STEEL AND FORGE, a Corporation,
Appellant,

vs.

GORDON W. SHULTZ, ERNEST PUETZ, and
LEE MCCOY,

Appellees.

DESIGNATION OF PORTIONS OF RECORD
AND STATEMENT OF POINTS ON
WHICH APPELLANT RELIES

Appellant hereby designates the following portions of the record and proceedings to be contained in the record on appeal:

1. The complaint;
2. The answer of defendant C B S Steel and Forge;
3. The motion for leave to bring in third parties defendant;
4. The order granting leave to bring in third parties defendant;
5. The third party complaint;
6. The motion of Gordon W. Shultz and Ernest Puetz, third parties defendant, for dismissal of action and for summary judgment;
7. The notice of motion of Gordon W. Shultz and Ernest Puetz for summary judgment, etc.;
8. The motion of Lee McCoy, third party defendant, for dismissal and for summary judgment;
9. The notice of said last mentioned motion;
10. The order dismissing third party complaint;
11. The judgment of dismissal, third party complaint;
12. The notice of motion to vacate order dismissing third party complaint, etc.;
13. The statement of objections to proposed order and judgment dismissing third party complaint;
14. The minute order of November 13, 1950, overruling objections of defendant and third party plaintiff and denying its motion to vacate the judgment;

15 The notice of appeal;

16. The order extending time to appeal.

Clerk's certificate.

The following are the points on which appellant intends to rely on the appeal:

1. The trial court erred in dismissing the third party complaint;

2. The trial court erred in giving judgment of dismissal of the third party complaint;

3. The trial court erred in denying the motion of defendant and third party plaintiff to vacate said judgment of dismissal;

4. The trial court erred in overruling the objections of defendant and third party plaintiff to the form of the order and judgment of dismissal.

Dated: March 8, 1951.

/s/ RICHARD A. PERKINS,
Attorney for Appellant.

Affidavit of Service by Mail attached.

[Endorsed]: Filed March 10, 1951.

No. 12864

IN THE

United States Court of Appeals

FOR THE NINTH CIRCUIT

C B S STEEL AND FORGE, a corporation,

Appellant,

vs.

GORDON W. SHULTZ, ERNEST PUETZ, LEE MCCOY, HOW-
ARD LANE, and HAROLD W. GENTIS,

Appellees.

On Appeal From the United States District Court for the
Southern District of California Central Division

BRIEF FOR APPELLANT.

RICHARD A. PERKINS,
608 South Hill Street,
Los Angeles 14, California,
Appellant's Attorney.

MAY 3 - 195

PAUL F. O'BRIEN,

CLERK



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No. 12864
IN THE
United States Court of Appeals
FOR THE NINTH CIRCUIT

C B S STEEL AND FORGE, a corporation,

Appellant,

vs.

GORDON W. SHULTZ, ERNEST PUETZ, LEE MCCOY, HOW-
ARD LANE, and HAROLD W. GENTIS,

Appellees.

**On Appeal From the United States District Court for the
Southern District of California Central Division**

BRIEF FOR APPELLANT.

Jurisdiction.

This is an employee wage suit instituted by complaint [R. 3-7] under Sec. 16(b) of the Fair Labor Standards Act of 1938, as amended (Title 29 U. S. C., Sec. 216(b)). The District Court had jurisdiction by virtue of Title 28 U. S. C., Sec. 1337, relating to civil actions brought under any Act of Congress regulating commerce. Appellant, CBS Steel and Forge, which was a defendant below, answered [R. 8-13] and pursuant to leave granted filed a third party complaint [R. 19-21], which was ancillary to the main action (Rule 14, Federal Rules of Civil Procedure). The District Court held that the third party complaint failed to state a claim upon which relief could be granted and gave judgment dismissing the same on the merits [R. 31-32]. This appeal is from that judgment.

This Court has jurisdiction of the appeal by virtue of Title 28 U. S. C., Sec. 1291, which confers jurisdiction to review final decisions of the district courts. (The pertinent portions of the statutes and rule cited are set forth in the Appendix.)

Statement of the Case.

This action was brought by Howard Lane and Harold W. Gentis, plaintiffs, against CBS Steel and Forge, a corporation (designated in the complaint as C.B.S. Steel and Forge Company), and fictitiously named defendants to recover money allegedly due as overtime compensation, liquidated damages, and attorney fees under the Fair Labor Standards Act of 1938, as amended [R. 3-7].

Defendant CBS Steel and Forge answered, denying liability [R. 8-13].

Thereafter, defendant CBS Steel and Forge moved for leave to bring in Gordon W. Shultz, Ernest Puetz, and Lee McCoy as third parties defendant and serve on them a third party complaint in the form attached to the notice of motion [R. 13-17].

There being no opposition to said motion, the District Court granted the same and gave defendant CBS Steel and Forge leave to serve a third party complaint in the form proposed [R. 18], which was done [R. 19-25].

The third party complaint alleged in substance: (1) that Lane and Gentis had brought an action against CBS Steel and Forge to recover overtime compensation, liquidated damages, and attorney fees accruing to them during their employment by the corporation from April 1 to November 1, 1948; (2) that CBS Steel and Forge had denied liability; (3) that during the period in question Shultz was president, Puetz comptroller, and McCoy forge shop

superintendent of the corporation, and it was their duty to cause the corporation to keep complete and accurate records of overtime worked and to pay employees promptly when due any overtime compensation owing them; and (4) that if CBS Steel and Forge was liable to Lane or Gentis in any amount it was because of the negligence or other misconduct of Shultz, Puetz, and McCoy. The third party complaint prayed judgment against the third parties defendant for all sums that might be adjudged against CBS Steel and Forge in favor of Lane and Gentis [R. 19-21].

The third parties defendant moved for summary judgment and alternatively for dismissal of the third party complaint for failure to state a claim upon which relief could be granted [R. 26-29].

No action was taken on the motions for summary judgment. The District Court held that the third party complaint failed to state a claim upon which relief could be granted [R. 30]. Judgment of dismissal followed [R. 31-32]. Subsequently, the District Court denied the motion of third party plaintiff to vacate the judgment of dismissal [R. 36].

The question involved in this appeal is whether the third party complaint states a claim upon which relief can be granted.

Specification of Errors Relied on.

1. The trial court erred in dismissing the third party complaint.
2. The trial court erred in giving judgment of dismissal of the third party complaint.
3. The trial court erred in denying the motion of defendant and third party plaintiff to vacate said judgment of dismissal.

ARGUMENT.

I.

Third Parties Defendant Are Liable to Third Party Plaintiff in the Amount of Any Judgment Recovered by Plaintiffs Against Third Party Plaintiff.

The third party complaint alleges that third parties defendant were the responsible officers of the corporation during the period in question and that it was their duty to cause the corporation to keep complete and accurate records of overtime worked and to pay employees promptly when due any overtime compensation owing them. It is further alleged that if the corporation is liable to plaintiffs in any amount it is because of the negligence or other misconduct of third parties defendant.

As agents of the corporation of course third parties defendant owed their principal the duty of acting with care and skill.

Sec. 2865, Labor Code of California (Appendix);
Restatement, Agency, Sec. 379(1).

Negligence on the part of an agent which causes his principal to become subject to liability gives rise to an action by the principal against the agent.

Restatement, Agency, Sec. 379(1), Comment (b),
Sec. 399.

Thus it is clear that Shultz, Puetz, and McCoy are liable to CBS Steel and Forge for any negligence which subjected CBS Steel and Forge to liability to Lane and Gentis under the Fair Labor Standards Act.

II.

The Liability of Third Parties Defendant to Third Party Plaintiff May Be Asserted by Way of Third Party Complaint.

An agent whose negligence subjects his principal to liability may be impleaded as a third party defendant in an action brought against the principal by another. The case falls squarely within the provisions of Rule 14, Federal Rules of Civil Procedure. (Appendix.)

For example, in an action against a railroad for negligent injury the defendant properly brought in its engineer as third party defendant.

Greenleaf v. Huntington R. R., 3 F. R. D. 24.

“A principal whose agent has violated . . . his duties has an appropriate remedy for such violation. Such remedy may be: . . . (h) Causing the agent to be made party to an action brought by a third person against the principal.”

Restatement, Agency, Sec. 399.

III.

The Third Party Complaint Is Ancillary to the Main Action, and There Is No Necessity for an Independent Ground of Federal Jurisdiction as Between Third Party Plaintiff and Third Parties Defendant.

It was argued to the District Court, and the third parties defendant will probably continue to assert upon the appeal, that jurisdiction was lacking in the District Court to entertain the third party complaint for want of diversity or other independent Federal jurisdictional ground as between third party plaintiff and third parties defendant. The con-

tention is without merit. The third party complaint is merely ancillary to the main action and no independent ground of Federal jurisdiction is necessary to sustain the third party complaint.

Williams v. Keyes, 125 F. 2d 208;

Crum v. Appalachian Power Co., 29 Fed. Supp. 90;

Barkeij v. Don Lee, 34 Fed. Supp. 874;

Schram v. Roney, 30 Fed. Supp. 458.

See also,

Official Form 22, Federal Rules of Civil Procedure.

Conclusion.

It is submitted that the third party complaint states a claim upon which relief can be granted, that the District Court erred in granting the motions to dismiss the third party complaint, and that the judgment of dismissal is erroneous and should be reversed.

Respectfully submitted,

RICHARD A. PERKINS,
Appellant's Attorney.



APPENDIX.

U. S. Code, Title 29, Sec. 216(b) :

Any employer who violates the provisions of Sec. 6 or Sec. 7 of this Act shall be liable to the employee or employees affected in the amount of their . . . unpaid overtime compensation . . . and in an additional equal amount as liquidated damages. Action to recover such liability may be maintained in any court of competent jurisdiction by any one or more employees for and in behalf of himself or themselves and other employees similarly situated . . . the court in such action shall in addition to any judgment awarded to the plaintiff or plaintiffs, allow a reasonable attorney's fee to be paid by the defendant, and costs of the action.

U. S. Code, Title 28, Sec. 1337:

The district courts shall have original jurisdiction of any civil action or proceeding arising under any act of Congress regulating commerce . . .

Rule 14, Federal Rules of Civil Procedure:

(a) Before the service of his answer a defendant may move *ex parte* or, after the service of his answer, on notice to the plaintiff, for leave as a third party plaintiff to serve a summons and complaint upon a person not a party to the action who is or may be liable to him for all or part of the plaintiff's claim against him. If the motion is granted and the summons and complaint are served, the person so served, hereinafter called the third party defendant, shall make his defenses to the third party plaintiff's claim as provided in Rule 12 . . .

U. S. Code, Title 28, Sec. 1291:

The courts of appeals shall have jurisdiction of appeals from all final decisions of the District Courts of the United States . . . except where a direct review may be had in the Supreme Court.

California Labor Code, Sec. 2865:

An employee who is guilty of a culpable degree of negligence is liable to his employer for the damage thereby caused to the employer . . .

No. 12864

IN THE

United States Court of Appeals

FOR THE NINTH CIRCUIT

C. B. S. STEEL AND FORGE, a corporation,

Appellant,

vs.

GORDON W. SHULTZ, ERNEST PUETZ, LEE MCCOY, HOWARD LANE, and HAROLD W. GENTIS,

Appellees.

BRIEF FOR APPELLEES GORDON W. SHULTZ AND ERNEST PUETZ.

LYLE W. RUCKER,

5410 Wilshire Boulevard,
Los Angeles 36, California,

Attorney for Appellees Shultz and Puetz.



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Appellees.

BRIEF FOR APPELLEES GORDON W. SHULTZ AND ERNEST PUETZ.

Restatement of Portion of Pleadings.

It will be observed from a reading of the Third Party Complaint [R. p. 20, par. IV] that

“*If* defendant C. B. S. Steel and Forge is liable
* * * it is because of the negligence or other mis-
conduct of * * * third party defendants * * *.”

And alleging further

“and it was *their duty* (naming third party defen-
dants) to cause defendant C. B. S. Steel and Forge
to keep accurate and complete records of over-time
worked and to pay employees * * *” etc. (Italics
supplied.)

ARGUMENT.

Third Party Defendants contend that the trial court is supported in its Judgment of Dismissal of the Third Party Complaint upon two distinct grounds.

Firstly: Appellant Has Failed to Allege or State a Claim Upon Which Relief Can Be Granted.

It is respectfully submitted that while said third party complaint alleges that it *was the duty* of third party defendants to cause the corporation to keep records, nowhere does said third party complaint allege that third party defendants *failed* to keep such records. It is obvious that the *only* basis upon which the defendant corporation's officers can personally be held liable to the corporation, is upon an act of culpable negligence, amounting to misconduct, and *that* misconduct can *only* be a failure to keep records, and obviously that failure must be alleged.

Secondly: The Trial Court Was Without Jurisdiction to Consider Such a Speculative Cause of Action, Involving as It Does, Matters Which Are Entirely Separate and Distinct, and Factually Involve an Issue Not Embraced Within Third Party Complaint.

The third party complaint is obviously speculative. The charging allegations begin with an "*If*" plaintiff is entitled to relief; it proceeds by alleging that the third party defendants are no longer connected with defendant Steel Company, stating that defendant "*Shultz was president, Puetz was comptroller, and McCoy was forge shop superintendent.*" and concludes by alleging that it was the "*duty*" of such individuals to keep certain records. (Italics supplied.)-

It appears at first blush that, even had appellant alleged what would ordinarily constitute a cause of action, the factual situation of such a third party complaint goes far afield of presenting an identical situation as that alleged by the plaintiff.

The appellant has failed to differentiate between those cases which ordinarily come with the purview of causes which may be impleaded by third party plaintiffs in the Federal Courts, and the factual situation of the ~~third~~ *third party* complaint herein.

Upon a reading of the cases which involved third party complaints, it is observed that in every instance such impleading has involved facts and circumstances, which *ipso facto* charged third party defendants with negligence, and from which negligence there was no escape, in that, in such cases, the matter in issue when presented directly addressed itself to the main point in issue.

Such was the case of *Greenleaf v. Huntington R. R.*, 3 F. R. D. 24, cited by appellant. That was a case of the negligent operation of a train and the railroad company brought in the engineer and conductor by impleading, charging them with negligence. The proof by plaintiff of negligence of the railroad company, of necessity involved at once the engineer and conductor, and once negligence was proven, the identical factual situation required no further or added hearing on the part of the trial court.

The question at once presents itself in the case at bar. Would a judgment in favor of plaintiffs and against defendant Steel corporation, confined to the pleadings of plaintiff's complaint, be applicable to third party defendants, officers of defendant corporation, and require no

further hearing or presentation of evidence, in order to find that third party defendants were liable to plaintiff, or even to third party plaintiff? The answer seems to be evident in the negative. Upon the conclusion of giving of evidence by plaintiffs, in the case at bar, and which (for argument's sake say) would immediately justify a judgment against the corporation, the Court would then be compelled to embark upon a lengthy trial to determine the individual claim of the corporation, as against its officers, and against each one of them individually. Unlike the *Greenleaf* railroad case, *supra*, the plaintiff therein, by the presentment of his evidence against the railroad company, if sufficient, was entitled to a judgment against the railroad company as such, and likewise against its employees. The railroad company, as such, would have no cause of action as against its employees for their negligence. And therein lies the distinction. In the case at bar the plaintiff, under no theory, would be entitled to offer evidence, or obtain the benefit of, the negligent actions of the officers of the corporation in failing to keep proper records. Such a cause accrues only to the third party plaintiff, and constitutes a separate, distinct issue, would or could involve an extended trial in itself, after the major issue of failure to pay wages had been fully litigated, and in which proceeding the plaintiff at bar would not and could not be interested, involved, or directly benefited. The result of such an extended hearing might, or might not, alleviate the corporation's indebtedness, because of a judgment rendered in favor of

plaintiff. The trial of the third party plaintiff's cause of action could involve many questions of law and fact, defenses, satisfactions and accords, releases, participation of present officers and directors of defendant corporation in keeping or participating in keeping records, hiring of plaintiffs and payment of wages, all of which plaintiff herein is not and could not be, under the law concerned with. The United States District Court, likewise, is not concerned with such matters, but the third party plaintiff is left solely to its remedy and relief in the State Courts, which have jurisdiction of such matters.

It can readily be seen where impleading is proper in cases of indemnity, where a trial of the original issue *pronto* relates itself to, binds, the indemnitor. Such as the case of *Pearce v. Penn. R. Co.*, 7 F. R. D. 420, and likewise in *Kelly v. Penn. R. R.*, 7 F. R. D. 524.

In conclusion appellees are impressed with the logic, law and reasoning, more particularly as enunciated in the case of *United States v. Jollimore, et al.* (Holland Furnace Co., Third Party Defendant), 2 F. R. D. 148.

The last cited case was where defendant had signed and delivered a note to Holland Furnace Co., and such note was assigned to the plaintiff, United States. Action was brought against defendant Jollimore on the note. Jollimore brought in Holland Furnace Company alleging damage for breach of warranty. The Court, in dismissing the third party complaint, said:

"It is clear that no liability of the third party defendant exists on this note to the plaintiff * * * Any liability of the third party defendant to the defendants is independent of the assertions of the claim of the United States and would therefore appear not

to be a liability 'for all or part of the plaintiff's claim against him.' To allow the impleading of this third party defendant would be to introduce a new and separate controversy into the proceedings * * * In the present case, the impleading of the third party defendant would require the trial of issues in no way involved in the controversy between the plaintiff and defendant. No greater convenience would be attained by trying the two sets of issues involved together. In such a case there is no reason for an exercise of discretion that results in holding that Rule 14 should apply to permit a joinder of actions."

Conclusion.

It is respectfully submitted that the District Court's judgment should be affirmed.

Respectfully submitted,

LYLE W. RUCKER,

Attorney for Appellees Shultz and Puetz.

No. 12864

IN THE

United States Court of Appeals

FOR THE NINTH CIRCUIT

C B S STEEL AND FORGE, a corporation,

Appellant,

vs.

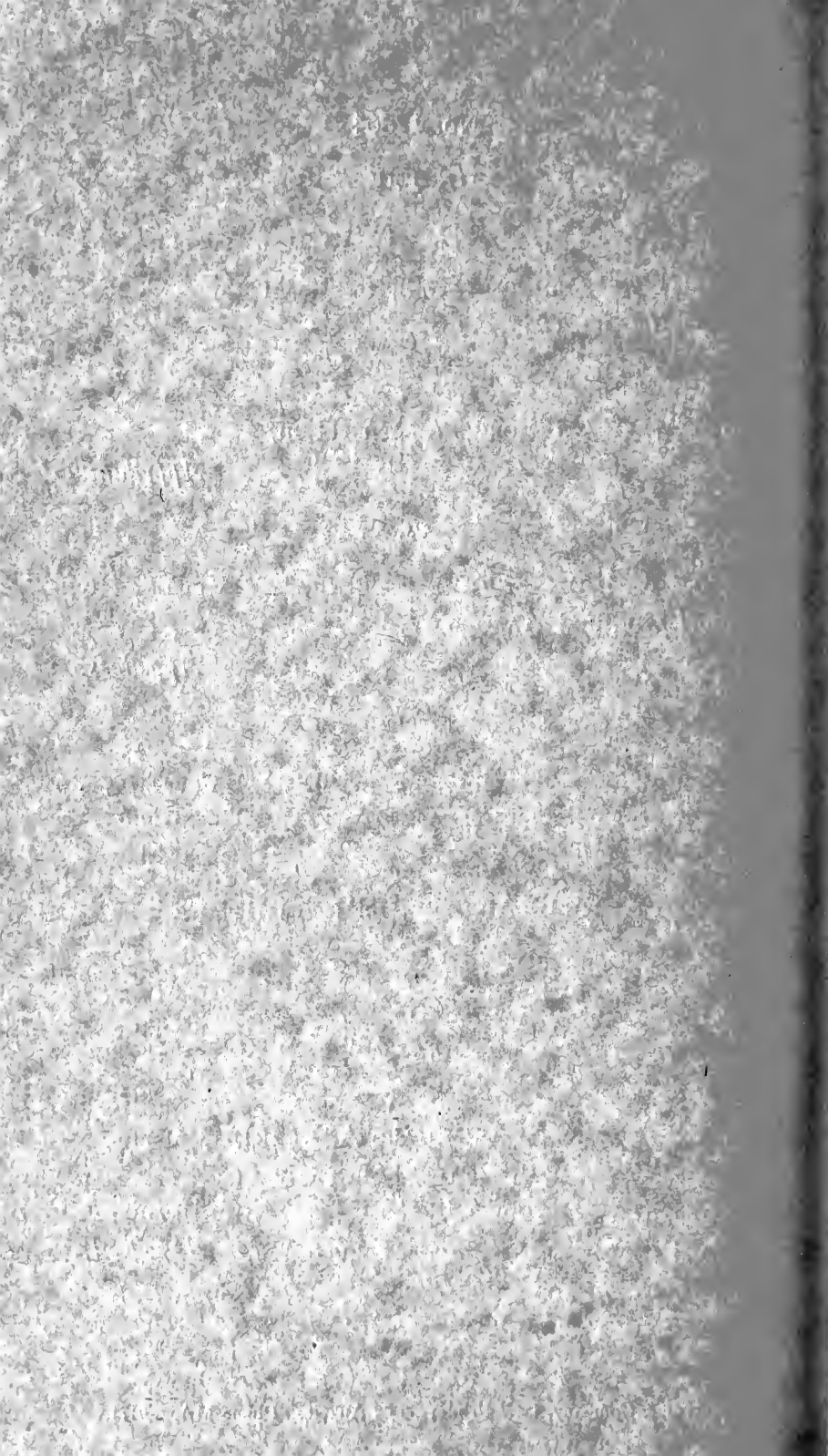
GORDON W. SHULTZ, ERNEST PUETZ, LEE MCCOY, HOW-
ARD LANE, and HAROLD W. GENTIS,

Appellees.

On Appeal From the United States District Court for the
Southern District of California Central Division

APPELLANT'S REPLY BRIEF.

RICHARD A. PERKINS,
608 South Hill Street,
Los Angeles 14, California,
Attorney for Appellant.



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IN THE

United States Court of Appeals

FOR THE NINTH CIRCUIT

C B S STEEL AND FORGE, a corporation,

Appellant,

vs.

GORDON W. SHULTZ, ERNEST PUETZ, LEE MCCOY, HOW-
ARD LANE, and HAROLD W. GENTIS,

Appellees.

APPELLANT'S REPLY BRIEF.

Preliminary Statement.

Appellees McCoy, Lane and Gentis have not filed any brief, although the time therefore has expired; they are therefore in default. Appellees Shultz and Puetz have not controverted Point I of appellant's opening brief. It may be taken as conceded, then, that appellees Shultz and Puetz are liable to appellant in the amount of any judgment recovered by appellees Lane and Gentis (plaintiffs below) against appellant (defendant and third-party plaintiff below). Shultz and Puetz have not conceded appellant's Point III, but they have not cited any authority to show that any independent ground of federal jurisdiction was necessary as between appellant and appellees Shultz and Puetz in order for appellant to maintain its third party complaint against them.

Appellees Shultz and Puetz now contend only (1) that the third party complaint does not state a claim upon which relief can be granted, and (2) that the claim set forth in the third party complaint is not the proper subject of third party complaint. Our argument will respond to those contentions.

ARGUMENT.

I.

The Third Party Complaint States a Claim Upon Which Relief Can Be Granted.

Appellees Shultz and Puetz complain that the third party complaint alleges that *if* appellant is liable to appellees Lane and Gentis it is because of the negligence or other misconduct of appellees Shultz and Puetz. But such an allegation is amply supported by authority and indeed is required by the circumstances of this case.

An allegation is not objectionable for being stated in hypothetical form. See, *e. g.*, Official Form No. 20, promulgated by the Supreme Court, stating in part as follows:

“ . . . *If* defendant is indebted to plaintiffs for the goods mentioned in the complaint, he is indebted to them jointly with G. H. . . .” (Emphasis supplied.)

In the instant case appellant was obliged to allege its third party claim in hypothetical form. In its answer to the complaint appellant denied liability [R. 8, 11]. Out of prudence, however, appellant has thought fit to implead Shultz and Puetz so that if plaintiffs recover anything from appellant, appellant will be enabled to recover judgment against Shultz and Puetz therefor in the same action. Appellant cannot allege positively that Shultz and Puetz

were negligent in record-keeping and payment of overtime compensation. Appellant does not believe that they were guilty of negligence or other misconduct. To allege that they were would constitute a confession of liability contrary to the theory of appellant's defense to the complaint. Certainly a third party plaintiff should not be required to confess liability to the plaintiff in order to maintain a third party complaint.

Since appellant's primary position is that Shultz and Puetz were not guilty of negligence or other misconduct of course appellant is unable to allege negligence or misconduct on their part with particularity. In any event, the general allegation of negligence is sufficient.

Hardin v. Interstate Motor Freight System, 26 Fed. Supp. 97.

And even if the third party complaint had been in any way objectionable for vagueness or ambiguity, dismissal was not proper. Appellees could have, but did not, move for a more definite statement under Rule 12(e), Federal Rules of Civil Procedure.

Judgment of dismissal would have been proper only if appellant could not conceivably be entitled to recover under any state of facts which could be proved in support of the third party complaint.

Sparks v. England, 113 F. 2d 579;

Equitable Life Assurance Society v. Saftlas, 35 Fed. Supp. 62.

By this standard it was obviously erroneous to dismiss the third party complaint.

II.

Appellant's Claim Against Appellees Shultz and Puetz Is the Proper Subject of Third Party Complaint Under Rule 14.

Appellees Shultz and Puetz contend that third parties may be impleaded only when the plaintiff's case against defendant and third party plaintiff would *ipso facto* establish liability of third parties defendant without additional proof. But there is nothing in the rules or the cases to support any such limitation on third party practice.

Contrary to appellee's argument, the case of *Greenleaf v. Huntington R. R.*, 3 F. R. D. 24, was not one where the liability of the defendant necessarily involved the liability of third parties defendant. There the complaint imputed defendant railroad's negligence to either the train crew, the engineer, or the conductor, in the alternative. Yet the engineer and the conductor were properly impleaded as third parties defendant.

In *Barkeij v. Don Lee*, 34 Fed. Supp. 458, the complaint alleged patent infringement. The defendant impleaded its assignor as third party defendant upon a claimed liability under a license and indemnity agreement. Of course, that involved additional issues as to the execution and construction of the agreement.

In *Schram v. Roney*, 30 Fed. Supp. 458, the main action was to recover upon the liability of defendant stockholder under the National Bank Act. The defendant brought in his transferor as third party defendant, thereby introducing new issues as to the circumstances of the transfer.

In *Crum v. Appalachian Power Co.*, 29 Fed. Supp. 90, the defendant in a negligence case brought in as third party defendant an independent contractor who was al-

leged to be liable under a contract which was of course not involved in the main cause of action.

Nor is it necessary that the third party complaint be against persons who are liable to plaintiff. See Rule 14, also two cases cited by appellees: *Kelly v. Penna. R. R.*, 7 F. R. D. 524; *Pearce v. Penna. R. R.*, 7 F. R. D. 420. If *United States v. Jollimore*, 2 F. R. D. 148, is read otherwise it is plainly wrong.

Appellants Shultz and Puetz exaggerate the extent to which litigation of the third party complaint would expand the original scope of the action, and they overlook the vastly more troublesome circuitry of action which would be required if their contentions here were to prevail.

If appellant corporation is liable to plaintiffs for overtime compensation, liquidated damages, or attorney fees it must be because of some act or omission of the corporation, which necessarily means some act or omission of its agents. In the instant case Shultz, Puetz and McCoy were the responsible agents of the corporation during the period involved. Any evidence which plaintiffs may adduce to establish the liability of appellant corporation will tend to show that such liability was caused by the negligence or other misconduct of appellees Shultz, Puetz, or McCoy in failing to cause the corporation to keep correct time records or to pay overtime compensation promptly when due. That will tend to establish appellant's case against Shultz, Puetz or McCoy, who should be required to defend themselves now.

The alternative, which is most undesirable, is to let the main action go on against appellant alone. Then, if plaintiffs recover from appellant, appellant will be required to bring a new action against Shultz, Puetz and McCoy,

in which they may litigate all over again the issue of fault which by then will have already been tried once and resolved against appellant in the instant action. Such circuitry of action would be most wasteful and unfair, and it is not required by Rule 14, which was intended to prevent just that sort of thing.

Conclusion.

It is submitted that the third party complaint states a claim upon which relief can be granted, that the claim is the proper subject of third party complaint, that the trial court erred in giving judgment of dismissal of the third party complaint, and that the judgment should be reversed.

Respectfully submitted,

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